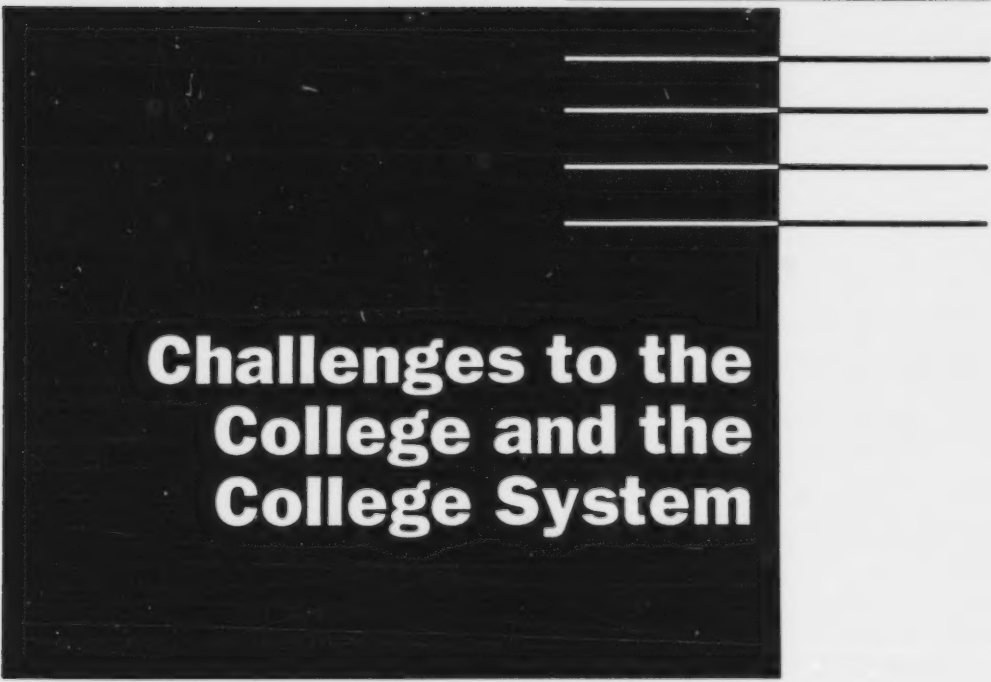
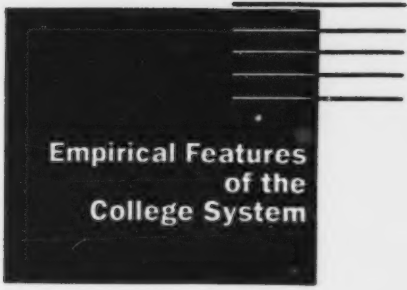




Challenges to the College and the College System

Background Papers

Quality Papers ...



Empirical Features
of the
College System

Background Papers

Vision 2000
A Review of the Mandate
of the Colleges of Applied
Arts and Technology

 **VISION**
2000

January 1990

Vision 2000 is a review of the mandate of Ontario's Colleges of Applied Arts and Technology. It is coordinated by the Ontario Council of Regents and was initiated by the Minister of Colleges and Universities in October of 1988.

A Steering Committee, with broad-based representation, was established to guide the Vision 2000 process. Consultation, with a wide variety of stakeholders, and research was handled by five study teams. Study Team 1's task was to provide an empirical snapshot of the current college system and its external environment. Researchers from Study Team 2 examined the role of colleges in our changing economy, while Study Team 3 looked into ways that the college system could promote access and educational support for diverse learners. Study Team 4's purpose was to study the challenging interrelationships of quality, accessibility and efficiency. For Study Team 5 the research and consultation focussed on the linkages between colleges and other educational institutions.

The background papers in this volume are part of a number of publications by researchers prepared for Vision 2000. These papers do not necessarily represent the views of the Study Teams, the Vision 2000 Steering Committee, or the Ontario Council of Regents.

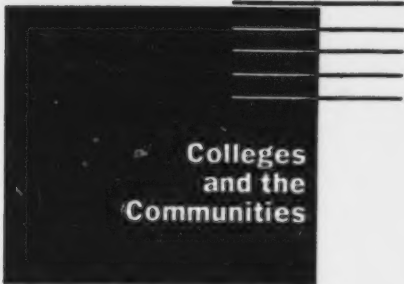
Together the background papers are meant to provide a broad base of ideas as part of the input for the deliberations of the study teams and the Steering Committee.

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**Colleges
and the
Communities**

Background Papers

Quality Papers ...

Terry Dance (with Roy Giroux)

Access and Quality: Preparatory and Remedial Education in the Colleges

Harv Honsberger

Quality: From an Instructional Perspective

Harv Honsberger

Tasks and Roles in Curriculum Development

Michael Park

Expanding the Core: General Education, Generic Skills, and Core Curriculum in Ontario Community Colleges

George Allan

Alternative Delivery of Instruction in Post-Compulsory Education

John Taylor

Visions of Educational Technology in the Year 2000

Norman Rowen

**Towards a Self-Governing System:
Some Aspects of Quality and Proposals for Change**

January 1990

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**Challenges to the
College and the
College System**

Background Papers

Terry Dance, M.Ed.
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George Brown College

**Access and Quality:
Preparatory and Remedial Education
in the Colleges**

Study Team 4

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Access and Quality: Preparatory and Remedial Education in the Colleges

1. Introduction

Can the Ontario college system offer both access and excellence?

This paper argues that both goals can be met without unwarranted expense to the system, and must be if the needs of employers, the community, and learners are to be met.

The Ontario college system has responded in a remarkable way to the original vision articulated by the former Premier, Bill Davis. Millions of learners have accessed a post-secondary education for the first time, ensuring a more informed citizenry and healthy democracy. Without the colleges, we might have seen far more social and economic polarization in this province during the 60s and 70s.

'Universal access' to a college education, however, is no longer sufficient as a goal for the colleges in the 90s.

It is neither socially responsible nor cost-effective for the college system to enrol thousands of students each year, only to have a significant percentage drop out before successful completion.

Together with leading-edge private sector employers, colleges must become more quality-conscious and service-oriented. They need to utilize a 'human capital approach'¹ and invest more in people, both staff and students.

Access should be redefined to include the concept of 'the opportunity to succeed,' not just enrol. Students must be able to enter appropriate programs and achieve their learning objectives. To ensure student success, colleges need an open admissions and a high exit standard policy supported by preparatory and remedial services.

The college system should employ a preventative strategy which is holistic and more prescriptive than in the past. A strategy which puts the emphasis on upfront assessment and student preparation more than after-the-fact remediation. A strategy which relies on a variety of programs and services, rather than one standard approach, to meet the increasingly diverse needs of college learners. And a strategy which is based on the principle of partnership with other deliverers of education and training in Ontario.

Is this an unrealistic dream? The experience of colleges such as Miami-Dade in the United States proves that it is possible to expand accessibility and at the same time raise the quality of education provided. It's an ambitious goal but realizable.

This paper is based on a variety of sources including the many 'visions' submitted by college staff to Vision 2000, the results of Study Team 4's focus group meetings with more than 300 college representatives across the province last spring, the Vision 2000 Mini Scan,² retention studies conducted by ACAATO and

¹ MacMillan, Charles J. The Japanese Industrial System. De Gruyter, Amsterdam, 1984.

² For a detailed review of the results of the Vision 2000 Mini Scan see Irene Ross, "Mini Scanning the Future: A Vision 2000 Project," Challenges to the College and the College System, Toronto: Ontario Council of Regents, 1989.

several individual colleges, background papers prepared for other Vision 2000 study teams, the experience of Miami-Dade Community College, and the general literature on student retention in North America.

It is not meant to be a comprehensive, in-depth analysis, but rather an overview of some of the pressing issues confronting the Ontario system. It recommends some new directions based on what seems to be an emerging consensus among those most directly concerned with student success.

2. Definitions

Access:

The opportunity for students to enrol and succeed in appropriate college programs.

Quality Education:

Education which satisfies the clients' needs and expectations at a price which constitutes good value.

The quality of services (as opposed to industrial products) has become a key business issue in recent years. Quality management consultant, Treat Hull, has noted that while manufacturing quality is a long-established and mature field, service quality requires new approaches and methods.³

One of the key issues in service quality is to define who the clients are. In the case of the community college system, they would include at least the students and employers.

Achieving client satisfaction requires attention to three dimensions: calibre, design and execution. Calibre refers to the 'grade' of service offered which influences client expectations about the service provided. Quality of design refers to the appropriateness of program objectives and means, while execution is self-explanatory.

Until recently, concern almost invariably focused on detecting and reacting to errors or deficiencies in execution. This approach is economically inefficient. Even more important, it is concentrated on eliminating sources of client dissatisfaction rather than on creating sources of satisfaction.

An effective approach to quality must, therefore, go beyond error prevention in delivery to emphasize the 'satisfiers' in service design.

Preparatory Education:

Preparatory education prepares students who lack an Ontario Secondary School Diploma, are mature students functioning below the grade 12 level, and/or who need to meet specific requirements in order to enter a college program or the labour market directly.

Remedial Education:

Programs and services which assist students already enrolled in college programs who are experiencing academic difficulty.

Preparatory education can be clearly distinguished from remediation, and yet both are on a continuum and involve a variety of ancillary services in order to be effective.

³ Hull, Treat C. Correspondence, September, 1989.

To date, preparatory education has included the following programs and services, with wide discrepancy in both the mix and level of offerings among individual colleges:

- Student academic assessment
- Student orientation programs
- Basic Training for Skills Development (BTSD) or Academic Upgrading
- Ontario Basic Skills Program
- College Start Program
- Pre-programs for students who may have a grade 12 diploma but lack specific requirements for entry into a program (e.g., a Pre-Technology or Pre-Health program)
- General Arts & Science Program (developmental stream)
- English/French as a Second Language & English for a Specific Purpose Programs
- Women into Trades & Technology (WITT)
- Community-based bridging programs (both literacy and skills training)
- Preparation programs for students with special needs (e.g., College Preparation for Deaf & Hard-of-Hearing Students, Redirection through Education)
- College Vocational Program (for basic level high school grads)
- College Explorations Program
- Vocational Orientation Program and others

Remedial education has included the following programs and services, among others:

- Interim semester for students in academic difficulty
- Summer catch-up semester
- Reduced workload in first semester or year to give a student more time to complete a program
- Transfer from a diploma to a certificate level program
- Specific remedial courses in Math, English, & science
- 'Language across the curriculum' initiatives
- Peer tutoring
- Faculty advising/mentoring system
- Learning resource centres
- Workshops on study skills and time-management techniques
- A mandatory 'Student Success' course for all students
- Counselling services (academic and personal)
- Exit interviews

3. The Need

Rapidly changing technology, increased global competition and free trade are changing the level and type of skills required of the labour force. It has been estimated by the Premier's Council that retraining is costing Canadian business upwards of \$4.15 billion a year.

The rapid pace of change means that lifelong learning and continued retraining is no longer a catchy phrase but a reality for most workers.

Employers talk more and more about the need for staff with flexible, generic skills such as literacy, numeracy, inter-personal, communication and problem-solving skills, and computer literacy. Employers are prepared to offer specialized on-the-job-training, but want staff who are fully literate and job-ready. The expectation is that the public educational system should provide this foundation of generic skills.

The typical post-secondary student can no longer be described as 18-24 years old, white and male. College students today are older and come from a wide variety of racial and cultural backgrounds. Women constitute a slim majority. Immigration patterns indicate that the college system will need to serve an increasingly diverse student population (particularly in Metro Toronto) and actively develop a positive race relations climate. Franco-Ontarians also constitute a growing percentage of the college student population and have a unique set of needs.

The traditional delivery system (five days a week, 25 hours a week, in a classroom) is no longer appropriate for many students. More flexible and varied delivery systems are needed to motivate and prepare non-traditional students for further training or employment (e.g., part-time programs, learning resource centres, distance education, community-based programs, etc.).

The new learners are at all levels on the academic spectrum, but a large percentage are 'underprepared.'

The Southam News Study of Literacy in Canada, for example, has revealed that one in six working Canadians is functionally illiterate, and 17% of high school graduates are illiterate. Over a third of all high school students drop out before completion.

A recent survey of Ontario Heads of Language in the colleges found that 39% of all incoming freshmen with a grade 12 diploma read at the Grade 10 level or below. Thirty-one percent of students who failed the first-term English dropped out, whereas only 4% who passed dropped out.⁴ One college, in particular, found that 61% of those students reading at the grade 10.5 level failed to successfully complete their programs.

Between 1976-84, an average of 43% of Ontario college students did not graduate.⁵ This is slightly better than the U.S. average, and some attrition is both natural and positive. Mature students, for example, often may drop out for employment reasons, but return later; or they may drop out having successfully achieved their particular learning objectives albeit not college program objectives.

A 43% attrition rate, however, cannot be ignored. It's a particularly ironic phenomenon since post-secondary enrolment is declining in some colleges.

Attrition means we are wasting precious resources, both within the college system, and at the individual and societal level. The 'waste' can occur on three levels: a waste of individual human potential, of increased income potential for the student, and/or of improved labour market productivity.

⁴ "Student Retention/Attrition in Ontario CAATs." Report by Northern College's Committee on Academic Affairs, June, 1989.

⁵ Oppenheimer, Jo. "The Relationships Between Schools and Colleges." Colleges and the Educational Spectrum — Colleges and Schools. Toronto: Ontario Council of Regents, 1989.

Retention is, therefore, not only a quality issue, but an efficiency or 'waste avoidance' issue, particularly since competition for government funding has increased.

The literature on student retention reveals no single cause for attrition. Financial and employment constraints have a major impact on student retention. There is not a great deal an institution can do to help in this arena other than support expanded student aid, housing services, co-op education, etc.

Leaving aside the financial issues, however, the degree of student integration into the academic life of an institution appears to be key to improved retention.

Researchers such as Vincent Tinto have demonstrated that retention increases to the degree personal contact is maintained with students, high quality educational services are provided, and all members of the college community demonstrate a commitment to student success.⁶

It is clear that external pressures on the college system to provide effective preparatory and remedial education are mounting. Some people believe that one solution would be for colleges to simply exclude underprepared learners in order to improve quality... to refer them back to the secondary school system for upgrading. This is already happening to a certain degree as former high schools become transformed into adult learning centres. Colleges, they argue, should be closely connected to the university system and provide more advanced training.

A much more concerted campaign is needed, however, to reach underprepared learners. This campaign should involve colleges, school boards, and the community at large working in partnership. Why?

- The need for academic and skills upgrading is so huge that one educational system alone cannot answer it.
- The learners are far more diverse than in the past and have different learning styles and needs. Some prefer to acquire basic level literacy skills in a community or workplace setting; others want to acquire their high school diploma through a school board; and still others want to combine their academic skills development with vocational training in a college. No one mode of program delivery is THE answer.
- Effective linkages are needed between these delivery agents in order to provide learners with an 'educational ladder' and the opportunity for transfer.

Colleges have a particular contribution to make in this field. By integrating academic upgrading with vocational orientation and training, the colleges enable learners to pursue either more advanced levels of training or embark directly on a new career.

The success of the Ontario Basic Skills Program (OBS) in the colleges testifies to the ability of the system to provide this comprehensive service for disadvantaged adults. During the past three years, hundreds of thousands of adults have upgraded their English, Math, and Science skills, become computer literate, sharpened their critical thinking and problem-solving skills, developed a realistic career plan, and either found a good job or gone on to more advanced training.

The popularity of OBS reflects the fact that many adults prefer the adult-oriented environment of a college to the more juvenile connotation of a high school.

⁶ Tinto, Vincent. "Dropout from Higher Education: A Theoretical Synthesis of Recent Research." Review of Educational Research, 45, No. 1, 1975, 89-125.

In summary, the challenge before the college system is to 'include, not exclude,' by providing a quality service.

4. Operational Issues

To strengthen and expand preparatory and remedial education in the colleges, we need the following:

- Renewed federal and provincial commitment to ensure access to post-secondary education and the opportunity to succeed for underprepared learners.
- A preventative strategy which puts the emphasis on upfront student assessment and preparation to lessen the need for remediation.
- A more prescriptive 'open access' policy at both the system-wide and individual college level.
- A focus on exit more than entry standards.
- A holistic approach to preparatory and remedial education which treats the student as a whole person with a variety of academic, personal, and financial needs.
- A variety of preparatory and remedial programs and services to meet the needs of diverse learners (no one model is the answer).
- More flexible timelines for students to complete programs.
- Effective linkages among educational deliverers (colleges, universities, school boards, employers, the community).

The Means

What is required to 'operationalize' the above principles?

- 1) Formal recognition by government of the need for preparatory and remedial education in the colleges, including appropriate financial resources for students and colleges.
- 2) Individual college and system-wide commitment to 'student success' (retention initiatives with clear goals and timelines).
- 3) A review of entry and exit standards (system-wide and local).
- 4) Comprehensive upfront student assessment procedures.
- 5) Enhanced student services to meet the personal and financial needs of learners, both full-time and part-time.
- 6) Curriculum renewal and development of alternative modes of program delivery.
- 7) Staff development.
- 8) Formal and informal 'articulation' agreements with other educational deliverers.

5. Recommendations

- 1) **Formal recognition by government of the need for preparatory and remedial education in the colleges, including appropriate financial resources for students and colleges.**

Most preparatory and remedial courses and programs are not funded directly by the Ministry of Colleges & Universities (MCU). BTSD or Academic Upgrading and programs like Women Into Trades & Technology used to be heavily funded by the federal government, but in recent years, very few seats have been purchased. Fee-payers, subsidized by MCU, make up most of the remaining students. As a 'tuition short' program, BTSD is also subsidized by MCU at a lower rate than for post-secondary programs.

Some colleges have found other means to provide preparation and remediation (e.g., the General Arts & Science program), but this practice has not been officially sanctioned by MCU.

With the demise in CEIC purchases of upgrading programs, the gap has been partially filled by the Ministry of Skills Development's Ontario Basic Skills Program (OBS). OBS is an excellent program, but it is restricted to adults 25 years and older and targeted primarily at the disadvantaged. OBS funding has been effectively frozen at last year's level, and quite a few colleges have had to face budget cutbacks this year. The future of OBS is uncertain as the Ministry is undergoing fundamental internal change.

Preparatory programs not sponsored by the federal government offer no student training allowance, and most are not OSAP-eligible. This puts a great deal of financial pressure on the students, the majority of whom are unemployed or under-employed.

By and large, colleges have funded remedial services out of their general operating revenues. The wide variety of services offered testifies to the system's strong concern for the welfare of its students. In times of economic restraint, however, such services are often the first to be cut.

Another issue of major concern is the fact that MCU funding is tied to enrolment, not graduation statistics (or successful completion). The formula encourages the system to enrol as many students as possible upfront, regardless of outcome.

Many colleges have argued for more flexible timelines to allow students to complete programs at their own pace. But extra time means money and resources. It means putting the accent on quality more than quantity. If the funding formula was changed to include graduation, as well as enrolment statistics, this might entail a reallocation of internal college resources. Alternatively, consideration could be given to distinguishing core funding for essential services, like remediation, from enrolment based funding.

Recommendations

- 1a) That the federal and provincial governments explicitly fund more preparatory and remedial programs and services.
- 1b) That the Ministry of Colleges & Universities fund such programs at the same level as post-secondary programs.
- 1c) That the Ministry of Colleges & Universities include graduation as well as enrolment statistics in the calculation of its funding formula.
- 1d) That alternatively, consideration be given to distinguishing core funding for essential services like remediation, from enrolment-based funding.
- 1e) That OBS funding increase, or at least keep pace with inflation.
- 1f) That student financial aid for preparatory and remedial programs increase through expanded OSAP-eligibility and more federal seat purchases.

2) Individual college and system-wide commitment to 'student success' (retention initiatives with clear goals and timelines).

In the past few years, most colleges have launched a 'student success' campaign. A great deal of interest has been expressed in effective retention strategies, and many colleges have been very creative. These local practices need to be 'enshrined,' if they have not been already, in each college's mission statement and goals in order to formalize the commitment.

For some colleges, this may involve a reassessment of the importance of such departments as academic upgrading, developmental studies, counselling and student services, etc. Traditionally, the non-post-secondary departments have felt like second-class citizens. It may be time to assure such departments that they are equally valued.

A college-wide student success committee also seems to be a common feature at many colleges. George Brown's committee defines its mission in this way:

"The College must initiate and maintain a college-wide commitment to provide the kind of education and support that will ensure every enrolled student the opportunity for success in the college.

The Student Success Taskforce will help students identify and develop strategies to better meet their academic, social/personal, and financial needs."⁷

There has been little applied research, however, conducted either at the system or local level into the causes of attrition in Ontario CAATs and the most effective retention strategies. Likewise, there has been very little formal or informal 'sharing' among colleges of retention initiatives.

The Association of Colleges of Applied Arts & Technology of Ontario (ACAATO) and MCU, among others, could give leadership around this. The present ACAATO committee structure, for example, does not automatically bring together all those who might be interested in preparatory and remedial education or retention strategies. Regional or provincial conferences and workshops would also be useful.

Recommendations

- 2a) That each college initiate and maintain a commitment to providing students with an opportunity to succeed, and demonstrate this commitment in practice.
- 2b) That each college set up the appropriate operational mechanism(s) to ensure student success.
- 2c) That preparatory and remedial programs and services be clearly valued and allocated appropriate resources.
- 2d) That further research into the causes of attrition and effective retention strategies be undertaken, at both the system and local level.
- 2e) That individual colleges be encouraged to share their experiences and resources through regional or provincial conferences and structures such as ACAATO.

⁷ Student Success Taskforce, Operational Documents, George Brown College, 1989.

3) A review of entry and exit standards (system-wide and local)

To ensure both access and quality, colleges need to focus more on exit rather than entry standards. To quote Hugh Armstrong, Associate Dean at Centennial College:

"Quality is the constant, time the variable."

Why should time constraints prevent an underprepared student from enrolling in a post-secondary program? If it takes 5 years to complete a 3-year diploma program, what does it matter?

It matters, of course, to college administrators who have to secure additional resources to serve such students. If the funding formula were changed, as suggested earlier, a disincentive might be removed.

Many colleges routinely reject hundreds if not thousands of applicants each year because they have not met stated entry requirements. A rejected applicant more often than not receives a computerized rejection letter, accompanied perhaps with a flyer about other programs in the college. This type of impersonal follow-up is not effective.

Like attrition, this does not lead to 'efficiency' gains in the college. With declining post-secondary enrolment in some colleges, it is more than ironic. It also devalues the potential applicant and represents a failure to develop an important human resource. No one likes to be rejected, but for an underprepared student, such an experience can be devastating.

With upfront assessment, preparatory, and remedial services in place, every applicant could be accepted and placed in an appropriate program in the college or referred to another educational delivery agent if there is no space available. This latter alternative requires good local communication among educational deliverers.

It would also be useful to look closely at entry requirements to verify their currency and identify more precisely the competencies that are required of a prospective applicant. Likewise, exit standards should be clearly identified in order to avoid a lowering of standards.

Such a review should also address the strong concern among diverse racial and cultural groups that foreign academic credentials have not been evaluated fairly.

Recommendations

- 3a) That the college system endorse the principle: "Quality is the constant, time the variable" and offer a more flexible learning experience for students.
- 3b) That individual colleges strive to assess and place each applicant in an appropriate program in the college or another educational setting.
- 3c) That colleges put in place the necessary assessment, preparatory, and remedial services to accommodate student needs.
- 3d) That colleges review their entry and exit standards to ensure currency, accountability, and fairness.

4) Comprehensive upfront student assessment procedures

Students may be underprepared in two ways. They may lack certain academic skills and/or be confused about an appropriate career choice. Placement of a student in an appropriate program is, therefore, essential.

Students often drop-out due to frustration with their chosen course or program. A front-end academic and career assessment process is needed to ensure that students are placed in a program which matches their career aspirations and academic abilities.

The private sector has recognized that it is critical to prevent rather than catch 'defects.' The CAATs need to learn from this approach.

It is better to prevent an illness rather than cure it after-the-fact. And if you skip the 'diagnosis' stage, even the cure is questionable.

A study of the Colorado community college system found, for example, that the most significant factor concerning student success is whether the student follows assessment related advice and enrolls in recommended courses. More than 80% of the students who did so were successful.

Dr. Roy Giroux of Humber College has pointed out that in order for effective learning to take place, the teaching intervention must begin at the stage of learner readiness. Assessment is the process that establishes this level of 'readiness to learn.'

Assessment practices vary enormously across the system. Some colleges test all accepted post-secondary students; others test only by division. There is no system-wide standard. In most cases, the test is primarily an academic assessment and conducted after a student is admitted to a program. Creative assessment of prior learning experience is also missing in most colleges.

An individualized career and training plan drawn up for each student before training starts is preferable — the sort of 'training plan' trainees in the Futures program receive. This involves career counselling, and counsellors are in short supply at most colleges.

In addition, counsellors usually play a role after a student has been accepted and placed in a program. The admissions process tends to be conducted by admissions clerks, test centre staff, and over-worked departmental chairs or coordinators who operate in relative isolation from one another and often in competition.

Once a student is placed in a program, an 'academic alert' system is needed to monitor the student's progress and exit interviews held if a student withdraws. It is also important to identify 'early warning' predictors of academic difficulty, e.g., attendance, grades, etc. Every college differs, but few have achieved the sophistication of Miami-Dade's system which involves extensive computerization.

It would be helpful to have a system-wide mechanism for sharing local college expertise in student assessment, counselling, and monitoring. It should be an interdisciplinary mechanism which would bring together counsellors, admissions staff, and academic representatives. Such a body could also consider whether local assessment procedures should be standardized in order to facilitate inter-college transfers.

Recommendations

- 4a) That colleges aim progressively to implement an upfront, comprehensive assessment of students before program placement in order to prevent rather than catch student problems.
- 4b) That each student have a career and training plan developed in consultation with a career counsellor.
- 4c) That closer links be established between the admissions process and preparatory/remedial functions in colleges.
- 4d) That a monitoring system (for checking student progress), a mentoring system, and/or an 'academic alert' system be instituted in a college if none is in place.

- 4e) That a means to assess prior learning experience and foreign academic credentials be developed system-wide.
- 4f) That system-wide sharing of assessment, counselling, and monitoring expertise be encouraged with a view to possibly developing standardized techniques while respecting local diversity.

5) Enhanced student services to meet the personal and financial needs of learners.

What does Student Services have to do with preparatory and remedial education? Research has shown that students drop out of school for a variety of reasons. Personal and financial reasons rank high, along with academic difficulties.

An academic preparatory program alone may not be sufficient. A holistic approach is needed which treats the student as a whole person. Accessible counsellors, faculty mentors, student orientation programs, student buddy systems, college 'survival' courses, support groups, and social activities all play a role in making students feel welcome.

Assistance with housing and financial aid is also essential. Many colleges have been most creative in helping their students secure part-time employment and adequate housing. But one counsellor on a large campus will not probably be able to cope with student demand.

Many colleges are exploring a faculty 'mentoring' program in which an individual student is matched up with a faculty or staff member who acts as an advisor or mentor. Research has shown this kind of personal contact is a critical factor in retention success. It is also very often a rewarding experience for the staff member involved and heightens commitment to students. This commitment has a major effect on staff morale and teacher burn-out, as well as student satisfaction.

Despite a worsening financial climate, some colleges have made the quality of their student services a top priority. The long-term welfare, integrity, and reputation of an institution can be at stake.

Recommendations

- 5a) That colleges adopt a holistic approach towards underprepared students which recognizes their personal as well as academic needs.
- 5b) That colleges pay special attention to the financial needs of students and provide assistance and advocacy whenever possible.
- 5c) That colleges enhance rather than detract from resources allocated to student services and provide a variety of services.
- 5d) That colleges encourage faculty and staff mentoring systems for students.

6) Curriculum renewal and development of alternative modes of program delivery

Preparatory programs must be distinguished from remedial services, but the following principles seem to apply to both.

No one program or mode of delivery is THE answer. College learners are diverse and, so, therefore, are their learning styles. As described earlier, most colleges have been successful in offering a variety of instructional alternatives. A mixture of individualized learning with group work is but one example. Ideally, each student training plan should include a section on preferred learning style and environment.

As the student population ages, it will adopt a more demanding consumer posture. Colleges will need to design their programs around adult education principles: respect for the learner's need for self-direction, relevant content, regular learner input into the process, etc.

The difficulties of learning for disabled students represent another area which needs more attention. Through Special Needs funding, provided by the Ministry of Colleges & Universities, the colleges have begun to systematically respond to students with special needs. The connection between literacy levels and learning disabilities has been noted, but more applied research is needed into effective learning strategies for these students.

A typical 'academic upgrading' class, for example, can be just another frustrating experience for a learning disabled student. Some colleges are exploring the possibility of a special preparatory year or semester together with targeted remedial services.

To accommodate the needs of part-time learners, (a growing percentage of underprepared students), colleges need to offer course-based as well as program-based registration. Program-based registration can be inflexible. Individualized timetables, for example, are more compatible with course-based registration.

One last issue common to both preparatory and remedial programs is the need for additional upfront capital resources. Learning resource centres, computer-based learning materials, and distance education all require time and money to develop. And yet they are among the most appropriate learning vehicles for underprepared adult students.

Recommendations

General

- 6a) That a variety of preparatory and remedial programs, courses, and services be offered to meet the needs of underprepared learners. No single program or mode of delivery is the answer, since individual learning styles vary greatly.
- 6b) That course-based as well as program-based registration be offered.
- 6c) That the needs of students with learning disabilities be studied more closely and suitable services developed.
- 6d) That preparatory and remedial activities be designed on the basis of adult learning principles.
- 6e) That additional capital resources be secured to accommodate the need for learning resource centres, computer-based learning materials, and distance education.

Preparatory Education

- 6f) That college applicants who are not eligible to enter a post-secondary program directly be referred to an appropriate preparatory program, course, or service in a college or other educational setting.
- 6g) That college preparatory programs be formally approved and funded by the Ministry of Colleges & Universities.

A generic preparatory program would likely include any or all of the following components: assessment, academic upgrading to grade 12, life skills, English and/or French for Second Language learners, English for Specific Purposes, Job Search Techniques, Career Planning, Work Experience, Computer Literacy, and a credit course(s) in the Division the student is preparing to enter. Preparatory programs should also include the possibility of direct entry into the workforce. Such programs could vary in length.
- 6h) That students with grade 12 who lack a specific prerequisite for a certain program be referred to either a 'pre-program' semester or course (e.g., Pre-Health), or another appropriate preparatory service such as the General Arts & Science Program.
- 6i) That academic skills development not take place in a vacuum.

Preparatory programs should be linked whenever possible to other college programs. For example, a credit course in another teaching division as part of a preparatory program often motivates a student to continue his/her training; so does vocationally-relevant vocabulary in an English class.

- 6j) That colleges be granted the right to issue high school diplomas to mature learners, through cooperation between the Ministry of Education and Ministry of Colleges & Universities.

To date, colleges are entitled to grant high school grade 'equivalency' status for academic upgrading courses. Many students want to acquire a formal diploma but are forced to choose between high school or college. The trend towards collaboration among all three levels of education (secondary school, college, and university), could permit such a development.

- 6k) That the curriculum of existing preparatory programs be reviewed to ensure that adult learning principles are respected and the content is relevant to adults.

Some general education content, tailored to a preparatory program format (e.g., multiculturalism in Canada, human relations, environmental issues in the 90s), might also be appropriate. General education should not be the sole prerogative of post-secondary students.

Remedial Education

- 6l) That post-secondary students who are assessed as functioning below the grade 12 level in an area required for successful completion of their program be referred immediately to an appropriate remedial service. Completion of the remedial activity should be mandatory.

- 6m) That the Ministry of Colleges & Universities formally approve and fund remedial programs and courses.

- 6n) That every student be encouraged to take a college survival course such as "Becoming a Master Student."

- 6o) That remediation be integrated whenever possible into existing program curriculum. (The Language Across the Curriculum initiative at Seneca College is a good example.)

- 6p) That each college decide on the most appropriate combination of remedial services for its students.

7) Staff Development

Human resource development is critical if preparatory and remedial education in the colleges is to expand and be successful. The recommendations put forward by ACAATO's Task Force on Human Resource Development in the Third Decade represent a solid foundation.

Change cannot be imposed from above, and faculty involvement is essential.

Many of the recommendations in this report came from front-line staff. The implementation process, however, will require carefully planned staff development. Curriculum development, new modes of program delivery, articulation agreements with other educational deliverers, new student assessment procedures, a review of entry and exit standards ... all this will require staff contribution.

Those who are in direct contact with underprepared students should be given some general guidelines and resources, and then encouraged to identify specific new initiatives and carry them out. A tangible reward/recognition system would certainly be helpful.

Local college experiences should be shared system-wide, so the 'wheel is not re-invented' college by college. Government ministries and ACAATO could play an important role in facilitating such inter-college sharing of resources. A provincial conference on 'Effective Student Success Strategies' would be most useful.

Recommendations

- 7a) That ACAATO's recommendations concerning human resource development in the colleges be implemented.
- 7b) That the college system make staff development a priority in the process of strengthening preparatory and remedial education.
- 7c) That front-line staff be consulted and involved in all stages of implementation.
- 7d) That adequate resources for staff development be allocated, both locally and system-wide.
- 7e) That system-wide sharing of resources be encouraged through government ministry initiatives, provincial conferences, inter-college staff exchanges, etc.

8) Formal and Informal 'articulation' agreements with other educational deliverers

As pointed out earlier, closer links are needed among schools, colleges, universities, employers, and the community in order to:

- Meet the growing demand for academic and skills upgrading which one educational system alone cannot answer.
- Accommodate the diverse learning styles and preferences of adult students.
- Provide learners with an 'educational ladder' from one learning experience to another.

Study Team 5 of Vision 2000 has addressed this issue in great depth, and it is not the purpose of this paper to cover similar territory. In terms of preparatory and remedial education, however, it bears repeating that the educational deliverers cannot operate in isolation from one another.

Prior learning assessment must be more creative than simply a review of paper credentials. As suggested earlier, colleges should be able to 'grant' high school diplomas to mature learners, and high schools should be able to offer certain levels of skills training to adults. An experience in one educational setting should be transferable to another, otherwise the learner is caught in a dead end process.

To facilitate harmonious partnerships, it is important to define roles and expectations clearly. Resources should be allocated based on the particular expertise of each educational deliverer. Employers, for example, can play a major role in providing specific, on-the-job training. A community literacy agency is ideally suited for a learner with a previous negative educational experience who wants a non-institutional learning environment. A college is the ticket for those who want upgrading combined with a high quality technical education. And so on.

Recommendations

- 8a) That the college system endorse the need for closer links among educational deliverers in order to provide learners with an educational ladder and accommodate diverse learning styles.
- 8b) That prior learning assessment be more than just a review of paper credentials. An experience in one educational setting should be transferable to another.
- 8c) That roles and expectations be clearly defined among educational deliverers working in partnership.

Appendix

Assessment: A Report and Recommendations by Roy Giroux

Definition

In order for quality learning to take place, it is essential that the teaching intervention begin at the stage of learner readiness. The problem, of course, is that the learning abilities of students are diverse.

Diversity

There is a broad range of ability in academic readiness (math, language, reading, writing, listening, study skills, time management). Faced with this diversity, leaders must find a strategy to attend to these wide differences if value is to be added to each learner.

Assessment

Assessment is the process that surveys, evaluates, or assesses the learner and indicates the level of readiness to learn. These programs are most effective in the continuous intake adult training programs where students come on an ongoing basis, are assessed, and receive a prescription for learning. The American College Testing has a program called ASSET where students take language and math skills, receive a success seminar on time management and orientation to college success, and also receive personalized letters that provide answers in 19 areas where they have indicated (through self report) some weaknesses and where they need help. The College Board has a computerized adaptive test that provides quick turnaround in terms of language and math skills.

There is a critical shortage of:

1. Credible testing instruments that have been validated and have appropriate samples.
2. Use of technology so that students can get an immediate answer.
3. Student success materials and handbooks on study skills focussing on student success.
4. Standardized or professional tests on academic or vocational readiness that could presently be used in this area.
5. Research based upon student characteristics.
6. Comprehensive packages in the province of Ontario that could be used by a college for the purpose of assessment and these are in dire need of development.

Proposal

In order to provide a quality learning experience and to add value to the students, we must as a system:

- (a) collect student characteristics that we can act on IMMEDIATELY and also plan for the future (student profiles).
- (b) have direct intervention strategies where technology allows us to provide student assistance.
- (c) have a standardized testing program that uses technology for scoring and reporting processes.
- (d) have student success materials and handbooks available for wide use.
- (e) provide an opportunity for a provincial data bank on any of the above areas.

- (f) ensure that these processes are INTEGRATED. In the medical model, we do an admissions interview, report selected information (from OHIP to blood type, allergies, etc.), take X-rays, and are given a prescriptive treatment which ranges from intensive care (remediation) to outpatient treatment (working on your own). Much can be learned from this integrated model about a comprehensive assessment program which is more than testing. (Most X-rays and ECGs, etc., are standardized and validated.)
- (g) develop and validate academic readiness/vocational assessment packages using technology.
- (h) conduct a staff development program for advising.

Reference materials

1. Student characteristics (Dietsche study)
2. ACT
3. ASSET Program
4. Adaptive Testing

**Challenges to the
College and the
College System**

Background Papers

**Harv Honsberger
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Quality from an Instructional Perspective

Study Team 4



Quality from an Instructional Perspective

Summary

The purpose of this outline is to sketch an approach to the meaning of quality from an instructional perspective for Study Team 4 to consider as it develops recommendations for the Vision 2000 Steering Committee.

It is suggested that any review of the college mandate must consider those matters related to learning and instruction as well as the political, cultural and economic effect of the colleges.

Because of the increasing number of adult learners, a student centered approach to instruction will enhance effectiveness.

What is known about learning and instructional design systems needs to be used by colleges as the future is considered.

Three major factors are considered in most instructional design systems — student characteristics, the nature of the learning task, and the effectiveness of presentation strategies, techniques and materials.

Some student characteristics which need to be considered are briefly described.

A collaborative willingness to examine the curriculum in terms of currency, relevancy and priorities is seen to be needed.

The possible match or mismatch between student readiness and the nature of the learning task is described. Student assessment, preparatory and remedial services are seen as means to match students and educational opportunity.

In preparing curriculum, a five phase process is suggested — research, design, development, delivery and evaluation.

The role of the instructor in assuring quality is described. The 'reflective practitioner' role is seen to be a goal for instructors.

The human resource development implications of acting on the 'quality in instruction' factors are described.

Eleven recommendations are presented for Study Team 4 to consider.

As a brief attachment, some of the sources which have influenced the author are listed.

La qualité de l'enseignement

Sommaire

Ce résumé a pour but de présenter à l'équipe de travail 4 une définition de la qualité de l'enseignement dont elle pourra tenir compte en élaborant ses recommandations au comité directeur du projet Vision 2000.

On y suggère que toute révision du mandat des collèges doit aussi tenir compte des questions relatives à l'apprentissage et à l'enseignement, en plus de celles se rapportant aux effets politiques, sociaux et économiques des collèges.

En raison du nombre croissant d'apprenants adultes, une approche pédagogique centrée sur l'étudiant augmentera l'efficacité.

L'avenir des collèges doit être considéré à la lumière des connaissances actuelles au sujet de l'élaboration des systèmes d'apprentissage et d'enseignement.

L'élaboration de la plupart des systèmes d'enseignement repose sur les trois principaux facteurs suivants : les caractéristiques des étudiants; la nature de l'apprentissage; et l'efficacité des méthodes et techniques de présentation et du matériel

Le document présente une brève description de certaines caractéristiques des étudiants qui doivent être considérées.

Une volonté partagée d'examiner les programmes d'études afin de déterminer s'ils sont à jour et pertinents, de même que pour élaborer les priorités à cet égard, semble nécessaire.

On y traite de la préparation adéquate ou inadéquate des étudiants par rapport à la nature de l'apprentissage. Les services d'évaluation, de préparation et de rattrapage sont considérés comme des moyens permettant de préparer adéquatement les étudiants.

Quant à l'élaboration des programmes d'études, le document suggère une approche comportant les cinq étapes suivantes : la recherche, la conception, l'élaboration, la mise en oeuvre et l'évaluation.

On y décrit aussi le rôle que l'instructeur doit jouer pour assurer la qualité. Le rôle de «modèle» semble être l'objectif à atteindre pour les instructeurs.

Le document traite également des répercussions sur le développement des ressources humaines des interventions relatives aux facteurs ayant une influence sur la qualité de l'éducation.

Onze recommandations sont soumises à l'étude de l'équipe de travail 4.

Le document présente, en annexe, certaines sources qui ont été consultées par les auteurs.

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Purpose

The purpose of this outline is to sketch an approach to the meaning of quality from an instructional perspective for Study Team 4 to consider as it develops recommendations for the Vision 2000 Steering Committee.

The Context

Among the many perspectives (political, economic, social, structural, etc.) being used to examine the qualitative aspect of the mandate of the college system, there is 'some primacy' to the learning perspective. Although education as a profession is ancient, educational research is relatively new. It is easily documented that only in the past 60-70 years has a concerted attempt to understand the process of learning been made. Obviously, the results are not all in.

Vision 2000, on behalf of the colleges, needs to address some of what we currently 'know' about the learning process and related instructional theory, how well this is being implemented, and how effective this implementation is. The colleges are not just political instruments of economic and social policy. They are institutions of learning.

Any description of the colleges' mandate must consider the learning process itself.

This personal outline uses as a context for the question of quality some of the elements of instructional design theory. A basic assumption is that the learning opportunities need to be relevant to the needs of the individual. More adults are coming to the colleges, with a diversity of experience and cultural backgrounds. In order that these students might be successful, college learning experiences must become more student centered. Instructional design theory and technique allows for a variety of educational approaches. Thus, as in any good decision making process, instructors (and others involved in curriculum) will be provided with a number of alternatives from which they can compose the appropriate response. Such a course of action — the curriculum — can be described in a rational manner and connected to the students, the learning goals and the resources available.

Quality

In most instructional and learning theories, there are a number of factors to be considered. The actual number varies as individual theories place priority on different elements. Some have many, specifically defined elements; some have a few, general and inclusive terms.

Learning and instruction involve three basic elements and a relationship. Students, task and delivery of instruction are placed in an iterative relationship. Learning is intended to result from decisions made about student characteristics, the definition of the tasks to be learned (often in terms of cognition, attitude, and psycho-motor skills), and the subsequent design and delivery of instruction.

From an instructional perspective, modifying one element in the learning process — e.g., improving student preparedness — will provide incremental improvement but not revolutionize the quality of the college graduate. The learning tasks still need to be properly defined and the appropriate instructional strategies (including the mode and media decisions) implemented.

The social, political and economic realms will influence priorities and help establish standards. The training and skills of educators also influence the ability to deliver quality education.

Curriculum Development Phases

Student Assessment

There are a variety student characteristics; knowledge of these would help the educator to design quality educational opportunities. Many of these characteristics can be assessed by the college and instructor:

- generally, the mix of levels of knowledge, attitudes and skills the learner may have acquired through other education, training and practical experience.
- more specifically
 - knowledge and skill levels related to career goals
 - student attitudes related to the education process (do they want to learn? are there attitudes which are acting as barriers to learning?[a classic case is gender conditioning regarding math and science skills])
 - do they have the skills to learn?(can they research? can they communicate their thoughts? can they demonstrate their abilities? can they identify what they need to learn? can they already demonstrate some ability and want to move to a 'higher'/more relevant level?)
 - learning style characteristics
 - social style characteristics
 - other social/psychological characteristics
 - student availability (full time, part time, evenings, mornings; on the job, short term intensive, long term extensive)
 - student goals and motivation (advanced level, basic understanding, retraining, training, career change, career start, career focus,etc.)
 - language abilities
 - cultural background
 - values

Learning Task

Colleges and college personnel, need to work with business, industry (see Study Team 2), the community (see Study Team 3), other educational jurisdictions (see Study Team 5) and each other to identify and then prioritize the needs. Participation in determining priorities is a political consideration. Cooperation on the jurisdictional aspects of particular learning tasks — e.g., adult reading abilities — would influence efficiency factors in education as well as provide clearer information for learners.

It must be recognized that resources will always limit our ability to respond and therefore, those needs which are identified as most significant will have preeminence. Those needs which are to be acted upon must be analyzed and developed into learning/training tasks.

This process is curriculum development. It involves active listening, political liaisons, political decision making, skills distributed among a diverse group of people, resources to support the development of information (research), and most of all a willingness to value the task as important.

The quality of education will be influenced by who is involved in curriculum development, how well they are prepared for their role, and what they decide. [See "Tasks and Roles in Curriculum Development" in this volume.]

One important relationship between the student characteristics and the curriculum is to recognize that the likelihood of an exact match is small. Although we hope the educational ladder is continuous and smooth, the fact of the matter is that students often have to take very large steps or find themselves moving over rungs in the ladder they have already climbed.

Large steps are encountered just as they leave one jurisdiction (e.g., public school) and move into another (e.g., high school). This also happens when students transfer from one area of study to another. Since college entrance often involves not only geographic displacement, but also social and academic movement, the likelihood for students of an exact match between student and opportunity is small. When an educator considers the diversity of student backgrounds — recent high school graduates, high school leavers, adults returning for retraining or upgrading — the likelihood of a match seems to diminish.

Sometimes there are overlaps. These are likely to occur more frequently as the college curriculum is encountered by larger numbers of adult learners who have previous formal and informal education.

Both of these 'mismatches' would seem to argue for support for assessment services and for services which would include help for students to prepare to be successful in the educational and training areas. We should anticipate that some learners will need help during their education and be prepared to help strengthen their skills as they move into the challenges of their courses. Certainly, the overlaps argue for assessment techniques which will identify current strengths of the student and lead to accurate and somewhat individualized starting points for each student.

Preparatory and remedial work often requires different instructional strategies and learning patterns in order for the student to achieve success. Although public education would be fiscally hard pressed to provide individualized, customized education for each learner, neither can the system be said to be providing quality if it treats all learners as if there were no diversity in learning skills and abilities.

Flexibility in the starting point for students would require that courses be structured and scheduled to provide accessibility in terms of timing, location and delivery mode.

Delivery

Quality concerns are sometimes focussed here by those who are remote from the direct process of learning. "If it ain't good, it must be the classroom teachers' fault." However, quality here involves not only the other two major elements (students and learning task) but also, a process which has five major stages. These are described in more detail in the paper "Tasks and Roles in Curriculum Development" located in this volume.

Instructors do not just stand in a classroom and talk. Rather, instruction involves research, design, development, delivery and evaluation.

Research for curriculum design should come from the instructor's experience, advisory committees, the students themselves (previous and current), colleagues, management, other related educational jurisdictions, professional organizations, institutional, educational and applied research.

Design involves considering the student, considering the task, and then, 'putting together' an appropriate mix of mode or instructional strategy (independent, small group, lecture, discovery, experimentation, simulation, co-operative, field based, etc.) which uses the appropriate mediation (print, visual, discussion, etc.).

Development involves:

- producing the course (in outlines, lessons, etc.) in terms of learning objectives, instructional strategies, mediation, and evaluation strategies
- establishing the resource base needed — field placements, guest lecturers, trainers, facilitators, existing media resources [e.g. texts, films, tapes], facilities [labs, theatres, classrooms, student production facilities, library, etc.]. Of particular concern is the development of appropriate learning materials — texts, test banks, courseware, etc. which reflect the learning needs of college students.
- scheduling the learning activity on a student and task sensitive basis
- considering feasibility constraints (time, money, facilities, immediacy of needs)
- developing appropriate evaluation strategies and materials — did they learn what they set out to learn?/can they demonstrate their learning?/ has their attitude towards learning been enhanced?/do they feel they have improved both cognitively and in terms of skills?/ do they have confidence and/or the self-esteem to continue and practice what they 'know'?/were the learning tasks, the resources, the instructor, the facilities, etc. appropriate for their goals?

As well, development may mean producing learning materials which do not exist for a college student. These may be materials which adapt existing knowledge or practice to a local, regional, provincial, national or international perspective. This may also mean presenting the material in such a manner that student ability is considered. There have been many problems associated with using texts which demand a higher reading level than that of many college students.

Equally importantly, (some would say more important) is moving information into forms which are effective with specific learners. This need was expressed in the reactions to the Discussion paper, the Visions and the MiniScan as a need for flexibility, providing accessibility, need for modular curriculum and the need for alternative delivery strategies.

There is much information on the relationship between presentation of information and effectiveness of learning experience. One of many considerations includes the use of certain audio and visual material — line, shape, colour, movement, sound, and other elements all have different effects on student learning. Another major area of study has been on locus of control of presentation. This considers the degree of learner control over pacing, sequencing and other factors.

Some methods of presentation seem to be more effective with certain learners — but only in certain circumstances and with certain learning tasks. (How do you learn? Do you read the manual? Do you like to be shown? Do diagrams work for you? Do you need someone else to guide you? Are photos more effective for you than line drawings? Does colour help you or distract you? When? Do you like lectures? Do you ever listen to audio tapes to learn something? Would you listen to an audio tape on how to prepare an income tax return? On how to manage the Blue Jays? On how to build a Skydome?)

How much of this information on presentation and effectiveness is presented in teacher development programs? How much ought to be? Are there standards here?

How much is considered in terms of evaluation of courses by students, advisory committees, and faculty? How much do people feel constrained by Workload parameters? Are we designing good curriculum but lacking the training, resources or work environment to deliver it effectively?

Delivery involves realizing the design in an active, responsive manner. [see "Alternative Delivery of Instruction in Post-Compulsory Education," George Allan, in this volume]. This is done in a classroom, in an office, in the halls, before class, after class, on the job-site, in the field and in collaboration with the student, with colleagues, and with the community. As well, there needs to be adjustment for the pace of the learning by an individual or the group. There are adjustments needed to consider the dynamics of groups and

the dynamics of the delivery mode or medium (independent, print based learning is different from small group discussion and problem solving).

Certainly, one mode of 'delivery' that students, employers, and educators seem to agree on for many college courses is the use of field placements and, the extended, intense version of field placements — co-operative education. Is this a universal delivery mode or are there learning and practical constraints?

Evaluation involves using strategies which will give students feedback on their learning (nature and level of learning, skills acquired, relationship to future courses, career preparedness, strengths, developmental needs, learning abilities and disabilities, etc.). Evaluation also involves giving the world external to the learning situation feedback (whether goals were attained, standard of performance, relevance of objectives to external world, relevance to particular careers [i.e. interdisciplinary skills], etc.). Evaluation also involves listening to students and other stakeholders in the learning process about their ideas, opinions and issues which will enhance and change the curriculum and instructional strategies. Finally, evaluation acts as a starting point for action on the re-iteration of the instructional design process. Evaluation involves the instructor as a learner/researcher in the education process.

Role of the Teacher in a Quality Learning Process

The instructor is a collaborative researcher, designer, developer, teacher, evaluator. This multi-dimensional role requires collaboration with community, student, colleagues (staff, faculty, management and industry), curriculum, and a body of educational theory and practice.

This role needs to be better understood and valued — formally and informally. Content expertise is only one part of what makes a good instructor. More role definition research needs to be done. As well, the relationships between the instructor and the others in the learning process needs further description. This is the major purpose of the paper "Tasks and Roles in Curriculum Development," located in this volume.

Much is made of the phrase that the teacher should be a model for learners. It needs to be clear to all that the instructor is a critical member of a team which is accountable for quality education. One challenge for the instructor is to be responsive to learners and the professional world at the same time. Learners vary in learning styles and backgrounds. Professions and employers vary in their ideas about the importance of certain traits or what is relevant content. (How much is creativity valued by professional accountancy? How much is a rigid adherence to the rules regarding the use of chemical solvents valued by professional artists?) Curriculum will reflect the values and decisions made by those who participated in its design.

The instructor makes many decisions which subsequently come under scrutiny by a variety of 'significant others.' At different times, the instructor is likely to be either praised or castigated for the model established. Universal praise is not possible nor should it be expected.

Many believe that the professional is one who works at becoming aware of the goals, processes, and elements of the discipline; and, then gathers the information from 'clients,' colleagues and others, to adapt the profession to the needs of society. The role model that a teacher can provide is one of 'reflective practitioner.'

Human Resource Development Priorities

College personnel need developmental opportunities to deal with the challenges of their jobs in a professional manner. Many instructors were hired for content reasons; most survive (or leave) because of

their communication, design and problem solving skills. Yet, colleges provide varying amounts of training for instructors in these areas.

Many academic managers evolved into their roles after successful teaching experience. Their influence on curriculum development is important. Yet, again, there are varying amounts of training for such managers to fulfill their role in the process.

The visions submitted, the report on reactions to this Study Team's discussion paper — "Pressures for Change, Opportunities for Development," and the Human Resource Development in the Third Decade report, all declare that there is a need for more consistent training for instructors and academic managers to:

- assess students
- design and develop curriculum
- manage curriculum development
- develop delivery strategies based on student characteristics and curriculum
- implement formative and summative evaluation strategies based on student, community, and course need for information. Such evaluation, at least, needs to be coherent with the stated goals and objectives of the course.
- develop preparatory and remedial strategies and materials which will help learners prepare to be successful and work on overcoming learning barriers.
- develop counselling skills which will be 'client' and 'student' oriented
- develop more complete understanding of other educational jurisdictions, community and global priorities

Perhaps, equally important is the call throughout the system for leadership. Many interpret this to mean that senior executives need to be more responsive. However, the call for leadership is also an expressed need for clarity of purpose and willingness to act on what we know. All college staff are responsible for taking leadership in providing quality educational courses and services.

Recommendations

Based on some of these factors related to quality in the educational process, what needs to be done? What can be done?

Some Recommendations based on the above which might be considered:

1. That all colleges include in their strategic plans

- a description of the key elements (such as Students, Curriculum, Delivery) of the learning process
- a description of the people involved in the learning process and the role definition for each category (Faculty, Support, Management, Advisory Committee, Board of Governors, Community and Business, and Students — including Alumni).

2. That a five phase approach to Curriculum Development be adopted and acted upon — namely, Research, Design, Development, Delivery, and Evaluation — by all colleges for the purpose of reporting on resource allocation, faculty workload and performance appraisal.

3a. That each college establish a function which would coordinate and perform institutional research, applied research, and educational research.

This would develop the information needed to design curriculum which is current, relevant and is delivered and evaluated in a student centered manner. This information would be distributed to individual clients (instructors, departments, programs, schools, businesses) and to the system for use in the development of curriculum.

3b. That the college system establish a function (centrally and/or regionally) to establish research priorities at the system level and coordinate with local college research activities. This research activity would be focussed on information related to the learning process and curriculum development.

4. That training and development opportunities for college personnel be prioritized and categorized considering the five phase curriculum development description.

5. That colleges establish (or support) a curriculum development service which will consult with and provide support for the people involved in the curriculum development process. The service will be responsible for providing information, expertise and training on the curriculum development process in order that academic departments can achieve the appropriate standards.

6. That colleges review curricula using student centered criteria, particularly those elements related to adult learners.

7. That a minimum percentage of all academic budgets include an allocation to the development and assessment of curriculum materials (course outlines, annual reports, instructional materials such as lab notes, workbooks, courseware, visual aids, textbook assessment and modification, learning modules, remediation packages, etc.).

8. That all course (and program review) evaluations be based upon student, faculty, colleagues, management, and advisory committee input. Student and faculty evaluation reports should be prepared every time the course is offered and reviewed by the academic manager. Management, colleague and advisory committee evaluation reports should be prepared at least every third offering of all courses.

9. Students and alumni should be represented on all advisory committees and students should prepare an annual report to the advisory committee on their perspective of the curriculum.

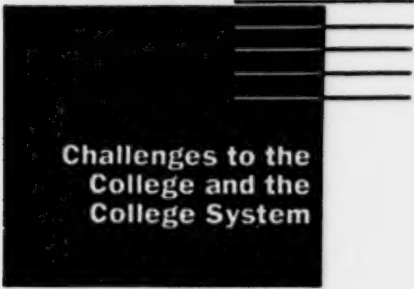
10. That all colleges have a professional library with literature related to assessing student characteristics, assessing and preparing learning tasks, and design, development, delivery and evaluation strategies. This library should have both general educational materials and those specifically focussed on college level education.

11. That colleges share information on the relative level of funding allocated to student assessment, preparatory and remedial activities, and curriculum development and work towards the establishment of system wide guidelines for these services.

Some Sources

This is neither an annotated bibliography nor a review of literature. The purpose of the paper is provide background. These are a few of the sources which can elaborate on the issues discussed and point the interested reader towards more detailed discussions:

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Tasks and Roles in Curriculum Development

Study Team 4



Tasks and Roles in Curriculum Development

Summary

What we teach and how we teach it is, perhaps, the most political of all decisions which colleges have to make. This paper outlines the process of curriculum development, who is involved, and the nature of their roles. The ideas are an elaboration of those presented in one part of the "Quality from an Instructional Perspective." In particular this paper provides more detail on the decisions which need to be made at each stage of the curriculum development process and who might be involved in those decisions.

Seven recommendations are presented for consideration. They are designed to address the need for broad based participation which will be required in order to achieve improved curriculum.

- 1a. Hiring criteria and training programs for faculty must include curriculum development expertise. This expertise should consider the five phases of curriculum development.
- 1b. Faculty appraisal systems must include curriculum development criteria and include input from others involved (students, colleagues, managers, faculty self-evaluation, advisory committees, and 'business' representatives).
2. Hiring, training and appraisal criteria for academic line managers should include the same curriculum development dimensions as for faculty.
3. Local, regional and provincial HRD activities must include training about the process and political nature of curriculum development. This training should include how to clarify roles, negotiate results and resolve conflict in the curriculum development process.
4. Colleges should prepare and implement curriculum development 'orientation' programs for all those nominated for advisory committees and boards of governors. Appointments should be made dependent on participation in these orientation programs.
5. Articulation agreements with other educational jurisdictions should include the development and sharing of information about curriculum development processes used as well as outcomes. Longitudinal information on student characteristics should be gathered and reported on.
6. Colleges should require that all courses and programs have clearly stated goals and objectives and have frequently reported evaluations. Accountability for the development and consideration of these evaluative reports needs to be clearly established for each college.
This need for curriculum accountability needs to be recognized as a system wide need and action taken.
7. Colleges need to consider the possible conflict in accountability between the need for responsiveness and autonomy on a local level and 'central' funding.

Les tâches et les rôles en matière d'élaboration des programmes d'études

Sommaire

Ce que nous enseignons et comment nous l'enseignons constituent sans aucun doute les décisions les plus politiques que les collèges doivent prendre. Ce document donne un aperçu du processus d'élaboration des programmes d'études, ceux qui y participent et la nature de leur rôle. Les idées qui y sont présentées reposent sur celles contenues dans la première partie du document «Quality from an Instructional Perspective». Ce document fournit toutefois plus de détails sur la nature des décisions qui doivent être prises à chaque étape de l'élaboration des programmes et ceux qui participent à ce processus décisionnel.

Sept recommandations sont présentées. Elles reflètent la nécessité d'élargir la participation en vue d'améliorer les programmes d'études.

- 1 a) Les critères d'embauche et les programmes de formation professionnelle du personnel enseignant doivent tenir compte de la compétence en matière d'élaboration des programmes d'études. Cette compétence doit refléter les cinq étapes de l'élaboration des programmes d'études.
- 1 b) Les mécanismes d'évaluation du personnel enseignant doivent comporter des critères relatifs à l'élaboration des programmes d'études et prévoir la participation des autres groupes touchés, soit les étudiants, les collègues, les chefs de services, l'évaluation autonome du personnel enseignant, les comités consultatifs et les représentants du «milieu des affaires».
- 2) Les critères d'embauche, de formation et d'évaluation des chefs de services scolaires devraient comporter les mêmes exigences en matière d'élaboration des programmes d'études que pour le personnel enseignant.
- 3) Les activités locales, régionales et provinciales dans le domaine de la formation professionnelle du personnel enseignant doivent offrir une formation relative au processus et à la nature politique de l'élaboration des programmes d'études. Cette formation devrait porter notamment sur la façon de clarifier les rôles, négocier des résultats et résoudre les conflits dans le cadre du processus d'élaboration des programmes d'études.
- 4) Les collèges devraient élaborer et mettre en oeuvre des programmes «d'orientation» en matière d'élaboration des programmes d'études à l'intention des personnes nommées aux comités consultatifs et aux conseils d'administration. Les personnes nommées à ces fonctions devraient être tenues de participer à ces programmes.
- 5) Les ententes établies avec d'autres autorités scolaires devraient comprendre des dispositions prévoyant le développement et le partage de renseignements sur le processus utilisé pour l'élaboration des programmes d'études et les résultats obtenus. Des renseignements détaillés sur les caractéristiques des étudiants devraient être recueillis et analysés.
- 6) Les collèges devraient exiger que tous les cours et programmes d'études aient des objectifs précis et fassent l'objet d'évaluations fréquentes. La responsabilité de préparer et d'étudier ces rapports d'évaluation devra être clairement définie par chaque collège.
La nécessité d'établir la responsabilité des programmes d'études doit être reconnue et appliquée dans l'ensemble du réseau collégial.
- 7) Les collèges doivent aussi considérer le conflit possible en matière de responsabilité découlant de la nécessité de répondre aux besoins et de l'autonomie locale par rapport au financement centralisé.

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The Context for Curriculum Development

What we teach and how we teach it is, perhaps, the most political of all decisions which colleges have to make. This paper outlines the process of curriculum development, who is involved, and the nature of their roles. The ideas are an elaboration of those presented in "Quality from an Instructional Perspective" (located in this volume). In particular the paper provides more detail on the decisions which need to be made at each stage of the curriculum development process and who might be involved in those decisions.

Some have suggested that one of the challenges confronting the colleges is that they are expected to be all things to all people. It is well documented that the nature of the people coming to the colleges is diversifying. The nature of the educational opportunities and services they are seeking are similarly diversifying.

Without unlimited resources, those developing curricula will have to establish priorities. Louise Berman¹ contends that "problems of conflicting interests cannot be resolved until the points of emphasis or priority are established."

Part of the challenge for college curriculum developers is to involve the appropriate people at the point of the development phase where they can make the best contribution. Certainly, one of the contributions most needed is to establish priorities. Failure to involve the appropriate people in establishing the priorities can lead to a lack of credibility, ignorance and possibly hostility about the curriculum.

For most colleges, there are two types of curriculum development:

- (1) the development of new courses and programs, and
- (2) the re-shaping of existing curricula into new or additional forms for a particular purpose or audience.

Questions related to curriculum development which the system must answer are:

What information do those developing curricula require for either developing a new curriculum or re-shaping existing curricula?

How do those involved in making curriculum decisions acquire this information?

Since many faculty are hired because of their 'content' expertise, how do they learn the curriculum development process? Are there or should there be training standards for new teachers in this area?

Do others involved in curriculum development receive any 'training' or information to put in context the role they are asked to play? Are their roles clearly defined? Do they accept the definitions of those roles? Is there role conflict between staff and non-staff participants?

Who is accountable for curriculum decisions?

¹ see Unruh, G., & Unruh, A. Curriculum Development (McCutchan Publishing; Berkley, Ca.; 1984), pg. 118.

The Assumptions paper presented to the Vision 2000 Steering Committee is one document which attempts to outline some priorities. Likewise, Study Team 3's Values Paper (*Values for the Year 2000* by Susan Wismer) seeks to establish some of the priorities. The background papers for each Study Team are filled with the expressed needs, values and opinions on the priorities for the colleges and the college system.

How should Study Team 4 attempt to react to this wealth of information? Can the colleges and the system be expected to react to all of these ideas? How can the colleges systematically address these needs, values and opinions? What recommendations can this Study Team make to help those involved in curriculum development?

Phases of Curriculum Development

One way that the colleges can respond to this challenge is by understanding the process of curriculum development and come to see it as a political and educational process.

In educational terms, there are five phases to curriculum development — research, design, development, delivery and evaluation. What follows is a brief description of each of those phases.

The Research Phase

Formally, the needs are established at this stage.

Content:

Those developing curriculum need to read and analyze information about the content. This should include information from employers in related fields, recommendations from advisory committees, ideas from others teaching similar and related 'courses', curriculum guidelines issued by 'governing' bodies, legislation or precedence which students and instructors need to be aware of. Previously established course outlines, instructor experience, and skills and knowledge of in-coming students are all important content related sources. As well, curriculum developers need to be aware of the future goals of students and the specific knowledge and skill expectations of employers.

Students:

The curriculum development team needs to analyze information about students' previous achievements, learning skills, attitudes, learning styles, learning modes, demographics, language, and motivation in taking course, career and personal goals.

The success of previously used learning and teaching strategies needs to be considered.

Throughout the research phase, those developing curriculum need to gather information from personal and professional sources.

The Design Phase

In formal terms, the needs are prioritized and learning tasks analyzed and defined.

At this point in the development process, the information gathered is shaped. Common criteria used are statements of priority indicated by advisory committees. In some cases, there are criteria related to known standards of performance required of students (i.e., exit standards). Often, local and global needs must be balanced. Relevance and currency are criteria often used here.

Interpretation of the learner characteristics must be done. How will what needs to be accomplished be affected by who is involved?

Learning and instructional objectives and evaluation strategies are then generated. Following draft statements of these, instructional strategies can evolve. A preliminary design is evolving.

It is usually worthwhile to get feedback from various people who might be seen to have a stake in the curriculum — employers, colleagues, past students and others.

Following feedback on the design and modifications made, hopefully, there is some kind of consensus about the approach.

The Development/Production Phase

In formal terms, content and instructional alternatives have been considered, using known criteria, and then acted upon.

Course outlines — including goals, learning objectives, evaluation strategies, resources to be used and instructional objectives — need to be produced. These will be used as a blueprint by the students, those involved in instruction and those involved in evaluation.

Course content needs to be organized into related pieces or modules. The sequence or hierarchy of learning needs to be decided.

Learning materials need to be collected and evaluated or generated. These would include films, tapes, computer programs, texts, workbooks, overheads and other materials. Ideally, facilities would be determined.

The Delivery Phase

This is the most public phase. The elements of the curriculum — student, content and instructional design — are meant to come together to achieve the stated goals.

Instructors are there:

- to assess and establish linkages to what students already know and what they will go on to learn (backward and forward linkage)
- to prepare, coach and enable students in their learning process
- to counsel
- to provide constructive feedback (formative evaluation)
- to remediate (help students overcome learning barriers)
- to gather information on learner characteristics, instructional strategies, learning materials and the learning environment which are influencing the learning process and the achievement of the stated goals (classroom or action research techniques; the instructor often is forming evaluative opinions about the relative success of the instructional design — i.e. formative evaluation)
- to provide information on the relationship of what students are learning to other parts of the curriculum

The Evaluation Phase

This phase is subject to close scrutiny by many people. Much information becomes available.

Instructors compile the formative evaluation from the 'delivery' phase. Decisions about the achievement of standards and objectives by students are made.

Student evaluations of the content and process of the 'course' need to be gathered.

Instructor evaluations of the content, process and realization of the design of the course need to be made.

'External' evaluations of the course are made now.

There should be a longitudinal analysis of the student characteristics and achievements.

A report of this evaluative information should be prepared and distributed to the 'stakeholders'.

Who is Involved?

As previously stated, curriculum development may be the most political process in which educators are involved. A large number of people have a stake in what is taking place. Being responsive to the needs of these people and sorting out which needs can be acted on is a political process.

Academic line managers are involved (Program Coordinators, Chairs, Deans/Directors, Vice-Presidents' Academic) and feel that they are accountable.

Other faculty who teach the same students other or related courses are involved. Sometimes this involvement requires collaboration, either to share formative evaluation information about the student or about the relationship of learning objectives.

Advisory Committee members are involved. Often, they have played a role in determining the 'what' and 'how' of curriculum. Their involvement would seem to be critical at several phases of the process.

Boards of Governors are involved since they are ultimately accountable to the 'public' for the decisions of the college.

The executive of the college — President and other senior executive decision makers — usually share the ultimate accountability with the Board of Governors.

Business, industry and community are involved through the influence they exert. Some of this comes in the form of the information — priorities, opinions, advice, values — they provide to instructors, students, advisory committees, Boards. One piece of information they provide comes in the form of their willingness to hire college graduates. Another kind of information comes in the form of their willingness to accept students on field placements and co-operative placements.

Governments become involved in a variety of ways. The Ministry of Colleges and Universities becomes involved by accepting, rejecting and approving proposals for programs. Part of their decision is based on the nature and need for curriculum. As well, they provide information about priorities, standards, student characteristics, and legislation which must be adhered to. In some cases, the Ministry has worked to prepare 'content' guidelines for programs and courses.

As well, there has been a funding relationship between governments and curriculum. Both the federal and provincial government influence curriculum through the quantity and nature of funding.

Legislation often influences both the content and process of curriculum. In some cases, graduates need to know how to apply existing legislation in order to be accredited.

Professional organizations influence curriculum by establishing standards of operation and qualifications. In some cases, these organizations accredit curriculum or certify graduates.

Local communities influence curriculum by participating and providing information about human resource needs, economic, social and cultural needs.

Other educational jurisdictions — schools, other colleges, universities, private trainers — influence curriculum. Students either come from or intend to move on to these. Thus, college curriculum often needs to be concerned about student preparation of two kinds.

Obviously, students and instructors are involved. Student motivations, previous educational and life experiences shape the nature and quality of curriculum experiences. Graduates' success in their chosen careers influence curriculum and often provide feedback as alumni. Student difficulties and failure provides information about characteristics which need to be considered and suggest alternative learning strategies.

Instructors' experience in their chosen discipline as well as in the classroom influences curriculum. Their values, training, and relationships with students and colleagues influence curriculum. Faculty openness to the values of others involved in curriculum development is important.

Some Questions Related to Curriculum:

1. Many participants in the curriculum development process are volunteers. How does the voluntary nature of their participation influence curriculum?
2. What is the appropriate role(s) for management in curriculum development? Given the downsizing of college management groups, what accountability do managers have? What assistance can managers provide to others in the process? What training and currency of expertise do academic managers have in this area? How is this developed? Is curriculum development expertise part of the selection criteria used for managers?
3. Do colleges have the expertise required to develop and keep curriculum current and relevant? Where is this expertise? Is this expertise hired or developed? Do current HRD activities support people involved in this process?
4. Are participants in curriculum development given a clear understanding of their role and/or tasks in this process (see Appendix)? How is role confusion clarified and mediated?
5. What is the proper balance between local community and provincial/national/international needs? Who makes and is accountable for this decision?
6. How much does the fact that colleges gather advice locally but get financial support provincially/nationally create curriculum confusion? Is this changing as funding sources become more diversified?

Recommendations:

1a. Hiring criteria and training programs for faculty must include curriculum development expertise. This expertise should consider the five phases of curriculum development.

1b. Faculty appraisal systems must include curriculum development criteria and include input from others involved (students, colleagues, managers, faculty self-evaluation, advisory committees, and 'business' representatives).

2. Hiring, training and appraisal criteria for academic line managers should include the same curriculum development dimensions as for faculty.

3. Local, regional and provincial HRD activities must include training about the process and political nature of curriculum development. This training should include how to clarify roles, negotiate results and resolve conflict in the curriculum development process.

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This need for curriculum accountability needs to be recognized as a system wide need and action taken.

7. Colleges need to consider the possible conflict in accountability between the need for responsiveness and autonomy on a local level and 'central' funding.

Appendix

Roles and Tasks in Curriculum Development

This Appendix attempts to portray some considerations about the dimensions of participation. The goal is to provide clarity in tasks and role assignments.

The paper has given an generalized, somewhat idealized, overview of the tasks (or phases) and who the stakeholders are. It does not prescribe who should be involved in each of the tasks. Some of the task-role assignments are obvious. However, even in the case of instructors, who seem to be involved at all phases, there may be some confusion.

Many college instructors do not think of themselves as formally involved in educational research. In fact, many think the college mandate prevents them from getting involved in research. Yet, if the curriculum development process outlined is accepted, faculty are involved in research, design and development.

Some formal recognition of this does exist. Standard Workload Forms (SWFs) have as one component Preparation. This is a very general term and the criteria for performance there are not clear. The SWFs also include 'complementary' functions. In fact, many of these are often related to the less public, highly political, aspects of the curriculum development process. These include curriculum meetings with colleagues, advisory committee meetings, consultations with employers and alumni, and others.

What is the relationship of the faculty member to other participants in these early phases of curriculum development? Are faculty and managers professionally prepared to listen to the opinions and evaluative statements of other participants? Are instructors and colleges using the non-staff participants in a constructive manner?

The paper also suggests that some of the 'voluntary' participants in the process would be in a position to serve in more meaningful ways if they were better oriented to the process and their role within it. The possible roles for such participants is the focus of this Appendix.

Constructive Participation

Education has long included many people in its processes. Post-secondary education has long used citizen participation to help determine the direction, content, process and value of what it does. There exists a quantity of research on this participation but little seems to be formally used in the practices of the colleges.

Guidelines exist for the selection and duties of advisory committees. However, a current doctoral thesis by Cathy Henderson, Director of Student Services, Sheridan College, is demonstrating that role confusion is one of many problems associated with these committees.

The Council of Regents governs the selection and performance of Boards of Governors. However, on a practical level, there is often felt to be a fear about a Board that goes in its own direction, ignoring the directions of the staff.

What are the possible roles for the citizens who are motivated and share responsibilities for the colleges?

Desmond Connor in his work, *Constructive Citizen Participation* (Victoria: Development Press, 1988) references and suggests a scale of participation. This work is mainly based on citizen participation in public works projects such as highway construction, power line placements, the creation of landfill sites,

hazardous materials storage, the use of herbicides and other activities in which the public has increasingly become involved.

Is education any less 'controversial'? Are the public expressing their concern about staff performance and the lack of public participation when they allow privatization discussions and, in fact, increasingly send their children into private institutions? Or, when, business increasingly works with government to develop the human resources they need through private training activities?

Connor describes a participative planning process in terms of both the formal stages and the role of the public in that process (pg. I-12). As well, he has a Public Participation Matrix (pg.I-13).

In overview, Connor outlines seven accumulative stages that public participation might go through. At each stage, he describes the role of the public, shared roles, and the role of the authority (in this case, college system staff and governing bodies). As well, he describes the resource requirements, the risks and consequences of public participation for this stage and the evaluative criteria which need to be considered.

The seven stages for public participation described are:

1. Persuasion — here the goal is "to convince the public of the desirability of a preconceived program or policy through positive attitude development."
2. Education — the goals here involve the enhancement of effectiveness of existing programs, the creation of future public involvement, and make people more aware for the purposes of future behavioral changes.
3. Information/ Feedback — the goals are "to allow individuals to react in a formative evaluative manner to a present management scheme ... [and] to disseminate effectively relevant information."
4. Consultation — here formal dialogue takes place between the public and the authority for the purpose of establishing a frame of reference, the presentation of "local information and react to management alternatives," and "to demonstrate how public inputs affect alternatives."
5. Joint Planning — at this "shared decision making stage, the public is represented on department planning boards, is given voting and decision making authority...[the objectives are] to evaluate policy...[and] to develop a management plan."
6. Delegated Authority — at this stage the "responsibilities, normally associated with the authority" are transferred to "the public or other levels of government possessing the necessary expertise." The objective is "to utilize an existing element of self-help or mutual aid within a community to achieve authority goals."
7. Self-Determinism — at this final stage, the public does the planning. The objectives here are "to shift or diffuse the responsibility for the planning process from the authority to the public ... [and] to strengthen, at the community level, development skills."

Connor presents a chart which contains this information, the roles, the resources needed at each stage, etc. (page I-15).

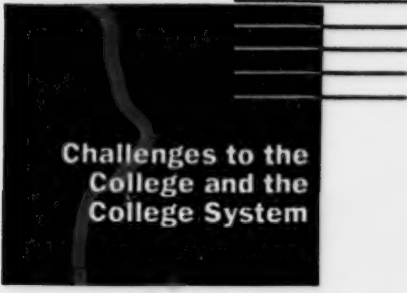
Conclusion

The point of presenting this slight part of the work available on citizen participation is not to get the college system, the Steering Committee or the Study Team to endorse Connor's work. Rather, it is to suggest, very briefly, the possible dimensions of citizen participation and to connect the curriculum development process into other issues the public is interested in.

Connor's work is interesting, Canadian, clear about his sources of ideas, and found in several of our colleges' bookstores.

Given that the Visions submitted indicate that more groups are seeking not only participation but more meaningful participation, how should the college system and individual curriculum developers react to this request?

Given the kind of information available on citizen participation, how might the colleges use this resource effectively?



**Challenges to the
College and the
College System**

Background Papers

Michael Park
Communication and General Studies
Centennial College

**Expanding the Core:
General Education, Generic Skills and Core Curriculum
in Ontario Community Colleges**

Study Team 4

**Expanding the Core:
General Education, Generic Skills and Core Curriculum
In Ontario Community Colleges**

Summary

Ontario employers have expressed loud concern that Ontario college graduates demonstrate no consistency of competence or common core education. The most-cited area of their education that employers have identified as needing bolstering is what some call "generic skills" and others "general education."

To clarify terminology, generic skills are defined as practical life skills such as problem-solving and communication skills. General education is defined as the study of liberal education subjects and courses, a prime byproduct of which is the development and refinement of high-level generic skills.

To meet the future needs of employers for workers with better generic skills than those possessed by current college graduates, the "core" of community college programs should be redefined to include a greater injection of general education and generic skills.

**L'expansion du programme de base :
l'éducation générale, les aptitudes de base et les programmes de base
dans les collèges communautaires de l'Ontario**

Sommaire

Les employeurs ontariens ont exprimé de vives inquiétudes à l'égard du manque d'uniformité de la compétence ou de l'éducation générale des diplômés des collèges de l'Ontario. La plupart des employeurs mentionnent que le secteur dans lequel des efforts accrus devraient être faits est celui des «aptitudes de base», tandis que d'autres mentionnent le secteur de «l'éducation générale».

Pour clarifier la terminologie, les aptitudes de base sont les aptitudes nécessaires à la vie quotidienne, comme l'habileté à résoudre les problèmes et les aptitudes de communication. Par ailleurs, l'éducation générale consiste en l'étude de matières dites libérales dont le principal résultat est l'acquisition et l'amélioration des aptitudes de base.

Dans le but de répondre aux besoins des employeurs à l'égard de travailleurs possédant de meilleures aptitudes de base que ce n'est le cas présentement, les programmes de base des collèges communautaires devraient être redéfinis pour y inclure une proportion plus importante de cours d'éducation générale et d'acquisition d'aptitudes de base.

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Introduction

What is a community college graduate?

In Ontario today, there are as many answers to that question as there are program models. From tightly focussed job skill upgrading opportunities through the more broadly-based one-, two- and three-year post-secondary programs comes a remarkably wide range of individuals—technicians and technologists, nurses and chefs, accountants and child care workers—who have met their program requirements and are thereby entitled to call themselves college graduates.

But what do these people have in common besides their certificates and diplomas? Do today's graduates of Ontario's community colleges share a common thread of learning and accomplishment? Do they bear a common hallmark of academic quality?

If they do so, it is one that many of their current employers fail to see. "We don't know what we're getting" is a loud and recurring theme in comments made to Vision 2000 by representatives of major province-wide employers and employer associations with regard to the college graduates they hire. (See Report on Consultations, Vision 2000 Study Team 2—Role of the Colleges in the Changing Economy, July 1989.) Employers see such a widely fluctuating range of skills and knowledge in graduates from college to college, from program to program, even from teacher to teacher, that they have no idea what sort of competencies to expect from newly-hired community college graduates. Their confusion is both a tribute to the college system's diversity and a condemnation of its failure to achieve a commonly accepted general archetype of what an Ontario college graduate should be.

These employers have told Vision 2000 that Ontario college graduates should bear some common hallmark of academic quality, that the words "college graduate" should have a common meaning across Ontario.

If they are right, how can such a goal be achieved? A small first step in that direction might be to ensure that those engaged in the Vision 2000 debate about the future of the college system at least speak the same language when discussing what should go into an Ontario college program. A significant reason why graduates vary so much from college to college and program to program almost certainly stems from the peculiar semantics in which this debate has been conducted in the past.

For instance, as part of the Vision 2000 process, employer and worker associations alike have been consistent in identifying an urgent need for better language skills, math skills, learning skills, thinking skills and interpersonal skills in future college graduates. The semantics problem arises in the language used within the college system to describe the inculcation of such skills. Some call it "general education," others education in "generic skills." Some put such stuff at the centre of what a college should be doing for its students; others consign it to the "nice-to-know but not essential" periphery.

The language used here is important, both educationally and politically, in light of the fact that for the first two decades of the Ontario college system's existence, programs of study were provincially mandated to have been one third "general education" and two thirds vocational education (or "training") in focus.

One of the longest-running, most rancorous and worst-resolved debates in the Ontario college system has centred on the role and content of this "general education" component of Ontario college programs. The extremist positions in the debate can be summarized as follows. In one camp lie the vocationalists, who believe that Ontario community colleges should focus exclusively on preparing students for the demands of specific jobs and careers. In the other camp reside the generalists, who insist upon a broader role for the colleges: preparing students for life as well as for employment. Hard-core vocationalists see job-focussed instruction in language skills, math skills, learning skills, thinking skills and interpersonal skills as

sufficient "general education" to meet their college's mandate; hard-core generalists believe that such skills are best honed through traditional liberal studies in the arts, sciences, literature and humanities—which is what they label "general education."

The result? A frustrating, sometimes willful exchange of obfuscating rhetoric when these issues are debated. One person's general education is another's generic skill or even core vocational course (public speaking, for example).

For the purposes of the Vision 2000 study, it is proposed that the following definitions be adopted for the terms general education, generic skills, vocational courses, and core curriculum. While this lexicon will be contentious for some, it is essential that all Vision 2000 participants at least agree about what they are disagreeing about when considering the future role of the Ontario college system.

General Education:

General education in Ontario colleges is the broad study of subjects and issues which are central for education for life in our culture. Centred in but not restricted to the arts, sciences, literature and humanities, general education encourages students to know and understand themselves, their society and institutions, and their roles and responsibilities as citizens. Primarily intended to extend the students' awareness of the world in which they live, give them a sense of context and enable them to make educated choices, general education also helps develop and refine essential generic skills such as language skills, math skills, learning skills, thinking skills and interpersonal skills.

General education offerings may be cast in the mold of traditional liberal studies courses tailored for college-level students, or they may be interdisciplinary courses clustered under much broader umbrellas, such as Canadian Studies or Humber College's issue-oriented Humanities course. However they are structured, their primary thrust is liberal—not vocational—education.

Generic Skills:

Generic skills are practical life skills essential for both personal and career success. They include language and communication skills, math skills, learning and thinking skills, interpersonal skills, and basic technological literacy. They are not job-specific, but are crucial to mastering changing technologies, changing environments and changing jobs. Some generic skills are now taught in discrete courses—communication, mathematics, creativity—while others—critical thinking, problem-solving, logic, technological literacy—may be introduced and/or reinforced in courses across the curriculum. Facility in some generic skills—reading, listening, writing, learning—is a prerequisite for success in most college-level courses.

A crucial distinction between general education courses and generic skills courses as now constructed lies in the realm of content. A skills course places its primary emphasis on "how to" process: how to write essays, how to solve calculus problems, how to find information in a library. For the most part, content is secondary, an adjunct to or practice prop for the development and refinement of a particular skill. True college-level general education courses, on the other hand, place their primary emphasis on content. In retrieving, talking and writing about that content, in shaping, analyzing and evaluating it, students are also required to develop and refine high-level generic skills, an inherent by-product of such general education.

With regard to generic skills, formally identifying the set of such skills to be deemed essential for a future college graduate and incorporating them into college curriculum across Ontario is one of the key challenges facing Vision 2000. In *Educational Implications of the New Techno-Economic Paradigm*, a background paper prepared for Vision 2000's Study Team 2, David A. Wolfe suggests that these bottom-line skills should be "analytical problem-solving skills, functional literacy, technological literacy and

interpersonal and communication skills" (25). According to Wolfe, "...technology and its uses are changing so rapidly that many observers argue that specific [job] skills are less important than the ability to study, think independently, learn quickly, be flexible, and work with others. [Workers] ...must know how to integrate data, trouble shoot problems, and understand the relationship between increasingly complicated and expensive equipment" (19).

In combination with such pan-college initiatives as writing across the curriculum programs, Ontario college general education and generic skill courses appear to be the most appropriate vehicles to address these areas. Certainly new courses and new approaches in the general education/generic skills area are required if future college graduates are to be equipped to meet the sort of skill needs that Wolfe identifies.

Vocational Courses:

The primary thrust of a vocational course is the inculcation of skills and/or knowledge specifically applicable to and necessary for entry into or certification within a particular job or occupational field. Some vocational courses provide broad-based skills and/or knowledge; others are highly specialized. The curriculum for such specialized courses should be flexible and extremely responsive to both the short- and long-term requirements of employers. Where possible, both broad-based and specialized vocational courses should also help develop and refine students' generic skills.

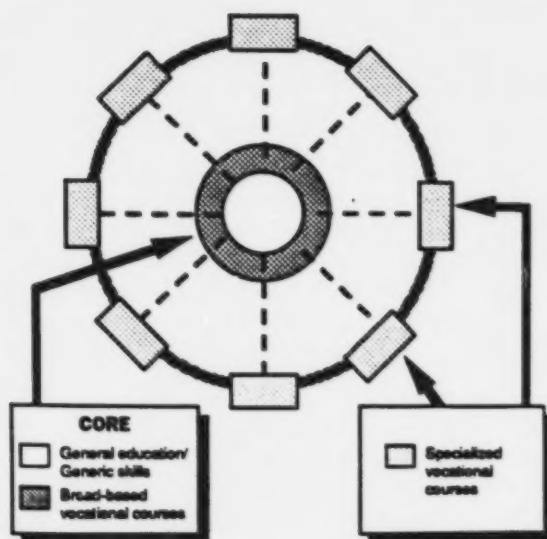
Because of their focus on and responsiveness to labour market requirements, it is expected that vocational courses, especially specialized ones, will have a much shorter "shelf life" in terms of students' long-term educational needs than generic skill or general education courses. For this reason, the curriculum for such vocational courses will be more attuned to changing local needs than that of the other types of courses.

Both broad-based and specialized vocational courses will continue to be of great importance in most college programs. However, to meet the rising chorus of demands from Ontario employers for college graduates with a higher level of generic skills than that demonstrated by so many of our current graduates, the concept of what constitutes the "core" of a college program, which has generally been described in terms of specialized vocational courses, should be redefined, ideally as follows.

Core Curriculum:

The core curriculum of every post-secondary program in Ontario community colleges will consist of those courses of greatest long-term benefit to college graduates: general education courses, plus others which inculcate the following generic skills—analytical problem-solving, functional literacy, technological literacy and interpersonal and communication skills. These will include broad-based vocational courses which provide an integrated overview of a student's career field and contain a high degree of generic skill content, plus specific generic skills courses in English, French, mathematics, etc.

The following diagram illustrates the proposed relationship between general education, generic skills, broad-based and specialized vocational courses:

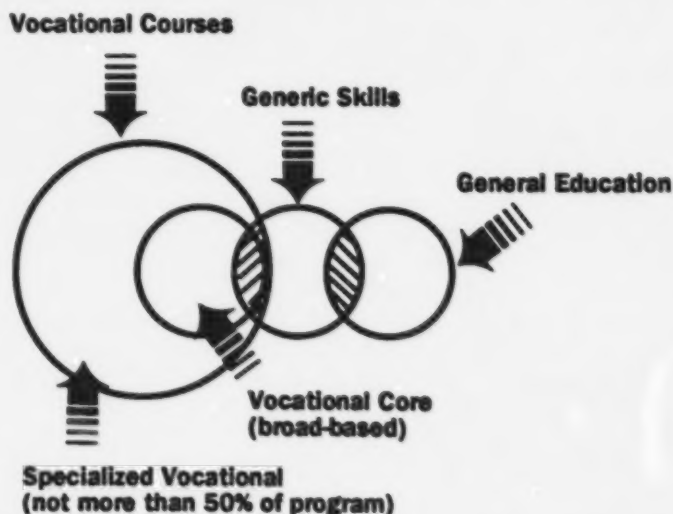


Implications for Programs

To shift the focus of college programs from short-term job market responsiveness to the longer-term needs of both students and employers will require a major realignment of college curriculum. If it is accepted that such a realignment is indeed necessary, the following outline of what constitutes an Ontario college program might be considered as a suitable set of parameters for the future:

- No more than 50 percent of a college program will consist of specialized vocational courses as defined above.
- The remainder of every post-secondary program will consist of a combination of generic skill, general education, and broad-based vocational core courses.

The diagram below illustrates the approximate mix and overlaps as envisioned in this model.



The rationale for designing, testing and implementing such a major curriculum change is simple. Employers, workers, students and teachers have all told Vision 2000 that too many among the current crop of Ontario community college graduates are deficient in generic skills and general education, to the detriment of our graduates' career success and the future performance of the Ontario economy. This realignment addresses this deficiency.

Employers and employer associations have also told Vision 2000 that Ontario college graduates should bear some common hallmark of academic quality, that the words "college graduate" should have a common meaning across Ontario. By expanding the core of every community college program to include the sort of courses outlined in this paper—and ensuring that all college graduates succeed in them—our graduates will indeed bear such a hallmark, to their own betterment and to that of Ontario's economy.

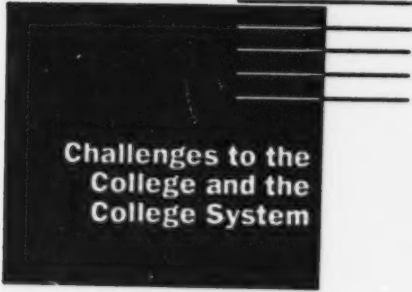
To ensure consistency of standards and application in all colleges, leadership in planning, implementing and regulating the extensive curriculum changes required to make this realignment a reality should come from the provincial level.

A final thought: perhaps in the future, all Ontario college post-secondary programs should be the equivalent of three years in length—to elevate the collective status of all who bear the title "college graduate" and to help ensure that all share a common, sufficiently broad-based education to increase their collective competencies and their chances for long-term career and personal success.

For Future Consideration

Obviously there are many practical and philosophical implications which stem from the principles and assumptions advanced in this brief. Some of the issues that should be addressed in conjunction with those raised here follow:

1. Testing and accreditation for entry-level generic skills, general education equivalencies.
2. Foundation-level remediation in generic skills to bring students up to a level necessary for success in college-level courses—should colleges do it? High schools? Where?
3. What to add, what to subtract from programs—and how to do so?
4. Delivery modes for generic skills, general education—new models?
5. Internal college reorganization.
6. A system-wide task force on curriculum reform?



**Challenges to the
College and the
College System**

Background Papers

George Allan
Lambton College

**Alternative Delivery of Instruction
in Post-Compulsory Education
A Prolegomenon**

Study Team 4

Alternative Delivery of Instruction in Post-Compulsory Education

A Prolegomenon

The Way Things Are

Before discussing any alternative to the conventional instructional delivery system, we had better review what that conventional strategy is. We have all experienced it, so an outline will suffice.

The conventional delivery strategy puts the teacher at the focus of the instructional experience for students. It is the teacher — perhaps with a multiplicity of activities, perhaps not — who leads the class as it progresses through the subject matter of the course, specifying objectives, demonstrating, explaining, evaluating and so on.

The crucial test is that this requires both teacher and students to be physically present in the same place at the same time — that is, the instruction has to be *scheduled*.

Class schedules typically have a fairly short cycle — usually a Monday to Friday week — before the pattern repeats. Usually the scheduled classes are of short duration — 50 to 70 minutes — and one or more days intervene between classes in the cycle.

There is a definite length to the period during which classes are scheduled, and then students are evaluated to see if they can proceed into the next instructional period.

This scheduling structure is the most salient feature of the conventional strategy. With respect to the interactions between teacher and students that occur in classes, these can vary widely, but the choice of activities available to the teacher is limited by the short class duration. Hence a good percentage of the student's time is spent in more-or-less a lecture mode — i.e., with the student relatively passive compared to the teacher.

It is interesting to note that when this has to be reversed and the student must become the doer — for example, in a laboratory course — longer blocks of time have to be scheduled. The difficulty of scheduling three to five hours of contiguous time within a complex timetable usually means that labs are scheduled in the afternoon. This generates the common situation where science and engineering students labour into the late, late afternoon as the halls empty of the non-technical students. (Could this be a factor in explaining the surprisingly low level of interest displayed towards technical areas?)

The teacher-centred approach to delivery of instruction — with the onus on the teacher to define and guide the instructional process — makes this massive 'lock-step' scheduling apparatus inescapable. With some consequences.

The lock-step aspect makes it not only possible but common for students to fall behind the class, and then to become discouraged and drop out. And if a student misses the starting point for an instructional period, it doesn't take long before it's necessary to wait a year before another chance to get started comes up.

From the institutional point of view, scheduling complexities and space problems multiply extremely rapidly as the number of programs and students increase.

An Alternative

What is an alternative? Individualized, self-paced instruction.

By this is meant the provision of modularized theoretical and laboratory learning packages to students who learn from them in a self-paced way, with the aid of mediated learning resources. The onus is removed from the teacher to personally specify and direct the learning activities of students.

These learning packages lay out the objectives that must be achieved by the student, and provide directions for learning activities and resources to be used. Students, as they progress through the package, can obtain formative evaluation by means of self-tests forming part of the materials.

Teachers are still deeply involved. But conventional 'lock-step' scheduling is eliminated.

The author has had direct involvement with a program that operates in this mode: the Process Operation program at Lambton College. Most of the observations below are drawn from experience with this program.

It is interesting to note that, for a number of years, the Process Operations program was unique in the college system as a self-paced program that was *post-secondary*. Typically, this delivery mode has been confined to non-post-secondary programs purchased by the Canada Employment and Insurance Commission, and apparently has not been seen as an appropriate post-secondary vehicle.

In the past few years, however, its application in the post-secondary area has increased, most notably at Seneca College in their Centre for Individualized Learning which has focussed on business programs.

In what follows, various aspects of this delivery mode are discussed, and also the requirements that must be met for its successful use. This leads to matters of cost, feasibility and attitudes that, in the past, may have deterred more consideration of the approach in the post-secondary area. Finally, future possibilities are considered briefly.

Student-Centred Aspects

1. With the severe constraint of lock-step scheduling removed, perhaps the most important aspect is the flexibility of the model to respond to student academic needs. Students with inadequate preparation can spend more time on foundations without 'falling behind,' getting discouraged, and dropping out. On the other hand, capable students can accelerate. One way or the other, student motivation can increase significantly.

The most dramatic difference between this strategy and the conventional one is that the student must take direct responsibility for his or her learning.

2. There is much more one-to-one interaction between student and teacher in a tutorial context. The teacher gains much more insight into a student's nature and needs. There is also much more opportunity to address a student's areas of weakness specifically since the curriculum is modularized. Since there is increased feedback from teachers to students, the latter have a much better idea of how they are doing and where they are at, which also can increase motivation, particularly for weaker students.

3. There is much enhanced access for part-time students, with respect both to availability and content. Everyone uses the same learning packages, and if these have been developed by the most skilled and knowledgeable teachers, then this expertise is made available to all.

Scheduling restrictions, although obviously present, are nowhere near as severe as with the usual scheme. A student can not only start anytime, but can attend intermittently, which, while not ideal, does give increased access. The application here to youth training programs combining work placement and schooling is obvious. Business and industry also has tremendous flexibility in sending students to the college, as has been demonstrated in the Process Operations program.

4. The modular nature of the curriculum design allows tailoring of programs to business/industry needs. Often, all these can be met with off-the-shelf modules.
5. Because far less teacher time is spent on delivery of content than with conventional instruction, much more time is available, not only for tutoring students one-to-one, but for evaluation. With scheduling constraints largely removed, the opportunity exists for evaluation approaches to measure student performance more effectively, for example in simulated workplace situations. Although the Process Operations program uses multiple-choice tests almost exclusively, this is certainly not mandatory.

Teacher-Centred Aspects

1. The teaching role changes quite radically away from delivery of content and towards tutoring and formative evaluation. Although the teacher can opt to be quite passive, a very active approach is more common, simply because the opportunity exists to direct individual students in meaningful activities.
2. Since students can be anywhere in the program, the teacher must know it all. This is certainly feasible in first-year programs. Also, this is an excellent developmental situation since teachers learn all the time as well, with respect to both content and ways of explaining. Obviously, a teacher with expert knowledge has to be available for occasional consultation.
3. There is much more flexibility of teacher scheduling because the program is not teacher-centred. For example, if an individual teacher has to attend a meeting, a substitution can be made without affecting students.
4. Although a program stands or falls on the quality of the learning materials and experiences available to students, and the best talent has to be employed to produce and plan these, tutoring of students does not require as high a level of knowledge as does material's development, which again allows for more flexible scheduling of teachers. Also, as mentioned above, a lot of teacher learning occurs as one helps students, so the level of teacher know-how about subject matter continually increases.

Fundamental Requirements for Successful Use of the Mode

1. There must be clearly articulated goals and objectives and a curricular design scheme for the program. These have to be developed participatively by the group that carries out the development of the instructional modules.
2. It must be accepted that the development and maintenance of instructional modules is the major task involved, and this has to be planned and managed extremely carefully to ensure that there is a

continuing high-quality effort. It is particularly crucial that the necessity of the maintenance aspect is clearly recognized; changes to program objectives and supporting materials have to be accommodated, and analysis of what works and what doesn't to facilitate student learning produces continuing needs for changes and refinement.

3. With regard to space and facilities, there must be provision for the student to have lab experiences integrated with theoretical modules. A testing facility is required that can cope with the volume of students without overdue delay. Sufficient studying facilities for students have to be available.
4. Each teacher involved with a particular program must have specific assigned responsibilities for some administrative aspects of running the system, for example, communicating with students, or liaising with the testing centre, and there have to be frequent staff meetings for communication about operational matters as well as student progress.
5. An effective tracking system is necessary to chart student progress, and this requires some clerical assistance for data entry, etc.
6. Orientation and counselling of students is a crucial requirement, particularly since a majority of students have not had any experience with self-paced instruction and the accompanying necessity to take responsibility for one's learning.
7. Opportunities for group interaction have to be built in to the program; otherwise this mode of delivery can be a somewhat solitary experience for students. Such occasions could be both instructional — there is no need to totally eliminate group classes in this mode — and counselling/social.

Limitations

1. The only intrinsic limitation to this mode of delivery stems from the requirement that the teacher must know all the material in the program. This seems unrealistic for specialized material typical, say, of that in the upper years of Technology, so the mode would have to be confined to the first, and some portions of the second year of current programs. Otherwise, it would seem that the didactic portion of most programs could be delivered this way.
2. Although not an intrinsic limitation, the need for development of excellent learning packages is so demanding that it must almost be considered one, in that the talent needed to do this is scarce and expensive.
3. As mentioned above, this mode has never caught on for post-secondary programs. This seems to be because of an assumption that content at this 'level' cannot really be taught this way effectively.

It can, but only with the availability of excellent learning packages. Producing these requires such an effort of will and exercise of expertise on the part of an institution that it could be that people have just recoiled from the thought of the effort and cost and rationalized other reasons for rejecting this mode of delivery. However, the time has come to re-examine the idea.

The Future

The above discussion presumes that the learning activities, in either the conventional mode or the alternative proposed, still take place within an institutional setting. This satisfies the need for easy access to learning resources and facilities.

Since we have many well-equipped institutions there is no reason why we should not continue to use them, even if more use is made of the self-paced mode.

However, attention must be paid to the technological revolution that is now almost at the stage when it will have a profound effect on the educational enterprise.

This revolution will bring the possibility of *open learning*, essentially free from the need for the institutional setting, and employing the alternative delivery mode that has been discussed.

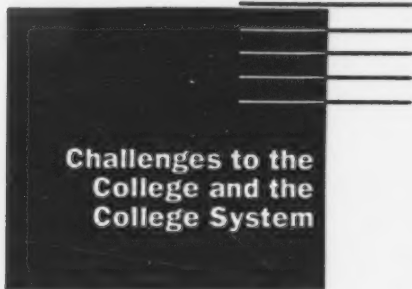
Inexpensive means of information storage will provide unprecedented access to vast data bases and information resources, and correspondingly inexpensive computer power will make available computer-based learning modules employing interactive video to everyone. Every home will be able to own the Library of Congress stored on optical disks, and a computer workstation linked to a worldwide satellite network.

Thus open learning, with constraints of time, location, library and faculty availability removed, could become widespread, and everyone, regardless of age, sex, previous education, or socio-economic status, could have access to unlimited learning opportunities at relatively small cost.

But — *particularly* with the new technologies, the need for the human element in learning will never be removed.

Colleges could play a vital role in facilitating the use of open learning resources by everyone, but particularly those who need encouragement and help because they lack educational background. Also, colleges would have to provide faculty assistance, and the opportunity for practice and lab work, in more advanced areas, for those using the open learning mode, as well as continuing to offer programs for those attending full-time.

Thus the colleges could become the open learning centres in their communities, and form an open learning network in Ontario, linked to the world.



**Challenges to the
College and the
College System**

Background Papers

John Taylor
Director
Computer-Based Training Project

**Visions of Educational Technology
in the Year 2000**

Study Team 4

Visions of Educational Technology in the Year 2000

Reflecting on the enormous gains made in microcomputer developments in the 1980s, one can anticipate the rate and magnitude of change to at least maintain itself over the next decade. I believe the following three interconnected assumptions will have an enormous impact on education by the year 2000:

1. Microcomputers will continue to become cheaper, smaller and much more powerful. Additional memory and consequent computing power will come from some form of writable optical disc technology which will emerge as an industry standard.
2. Multi-media stations (sound, graphics, text, motion video, still video) will become a consumer product with an enormous impact on educational delivery.
3. Networking computers will create new ways to communicate and cooperate on group tasks.

Point number one is extremely important in the CAAT system where financial restraint continues to be exercised. Nevertheless, colleges will continue to acquire the latest equipment through creative partnerships with hardware and software vendors. The use of networks mentioned in point three will also assist in reducing the cost of computer labs since many lower end machines will effectively use the power of more expensive single file servers to accomplish their tasks.

If our vision of multi-media stations as a consumer product is accurate, then the cost to CAATs should be affordable. If many people acquire this technology at home, the pricing will obviously become attractive, and also there will be no great need for extensive multi-media labs housed in the CAATs. But why do I feel that a multi-media station might become a viable consumer product when microcomputers, in fact, have not.

Microcomputers are mainly used at present to do wordprocessing, create spreadsheets and run databases. Some games computers have their own niche, but many consumers do not look to a microcomputer for entertainment and many consumers do not need the power of a micro-computer for their home budgeting, letter writing, etc. At the same time, while most Ontarians own a television, there is considerable dissatisfaction and concern about the quality of commercial television programs.

Consider the possibility of purchasing or renting interactive optical discs at a local outlet that could run on a piece of equipment selling for under \$1,000. What products might capture the consumer's fancy? It's an exciting thought when you consider that you can have thousands of pages of text, complete databases, sound, short moving segments, thousands of still photos and many different ways to access the information. From my own interests of late, I could speculate that there would be "The Birds Disc" — photos, drawing, migratory maps, bird calls, some motion clips of different species in flight and comprehensive written descriptions of their habitat, nesting process, food sources, etc. There could be historical discs focussing on different periods containing still photos of actual letters, rare documents and paintings; interviews, songs, and other kinds of recorded information; thousands of pages of text; motion sequences where available or re-created. Any area of human interest and inquiry could be creatively captured with this technology and made of interest to the consumer: cars, car repair, home renovation, geology, geography, endangered species, the environment, specific technologies, museums, art galleries, sports, gardening, music, ad infinitum. As these products are developed and come to market, formal educational delivery will have to adjust.

Faculty will function less as providers of information and more as guides, facilitators, mentors, and discussion and project leaders. They will need to have ready access to all the technological resources related to their discipline and time of their own to keep abreast of the new products as they become available. Librarians, likewise, will need time to review new multi-media products as they come to market. They will need to provide additional multi-media resources in their learning centres to ensure full availability of learning materials for independent study.

The technology to create multi-media stations exists today, but no industry standard has yet emerged. IBN InfoWindow Interactive Touchscreen technology is currently one of the leaders in interactive laserdisc market (analog technology), but there is great interest in the development of digital video interactive (DVI), a technology which will allow the end user to manipulate the images, sound and text. This digital technology in one form or another will likely be the foundation of the consumer multi-media station. Since the optical discs will be writable, the consumers will be able to have all of their family photos digitized on disc along with sound if they wish.

Faculty will be able to create their own multi-media discs relatively cheaply using Hypercard-like designer tools that allow easy linkages to digitized video and sound from the optical disc. This capability will be extremely important in technology training. Faculty will be able to take (or obtain) close-up videotape sequences of technical methods or applications which can easily be digitized and made available to students with text, sound and questioning sequences. The media presentation will be easily modified as new techniques in the technology are developed.

With the power and capability to design effective multi-media presentations for students in the hands of faculty, it will be important to try to co-ordinate development across the CAAT system. It would not be productive to have 23 CAATs all shooting their own video sequences of a technological process. If the work were effectively coordinated, different CAATs could be contracted to produce specific items which would then be shared with the rest of the system. Thus development of multi-media resources could be rapid and cost-effective. The fact that digitized images, text, graphics and sound can be manipulated by the end user means that the "not invented here" syndrome should not be the major stumbling block that it currently is.

Multi-media stations and presentations will be able not only to deliver a great deal of the "content" of a course, but to handle complex simulations as well, which will allow for student experimentation and trial-and-error role playing. These features will be important in training students in areas where personal safety is an issue or where consumable supplies have been a costly part of a program. Working with the "real thing" will be a judgement call of a faculty member. It will also be more important for faculty to get students outside the classroom (or resource lab), and into real situations where students can apply the knowledge and judgment that they have learned in their simulations and multi-media presentations.

In closing this section on multi-media technology, I need to briefly summarize some of the main benefits of the technology. Students will be able to learn at their own pace from presentations prepared or adapted by their teachers; they will be able to review or repeat sections as often as required for mastery. If the technology is truly a consumer product, many students will be able to use the discs on their own machines at home. Distance education should benefit from the multi-media interactive quality of the product.

All this by the year 2000? Yes, the foundation is already built.

Networks in Colleges and Beyond

I believe networks of computers will be prevalent by year 2000 in most CAATs. They will link faculty and students with E-mail, grades reporting, bulletin board systems and in-house publications to mention a few college-wide activities. Within particular departments, students and in some cases students and faculty together, will work on group projects which involve the whole class designing a product, researching a topic, creating a database, writing a manual, designing a training packet, or writing a report.

The need to communicate beyond the walls of an institution to colleagues in other CAATs will mean more telecommunication connects and more use of system-wide databases and bulletin boards. Colleges will need to share knowledge and resources more than they do now, particularly for instructional software evaluation, development and implementation strategies. Computer networks via satellite will be one way in which communication is maintained and expanded.

Beyond the Crystal Ball

I am afraid my crystal ball goes a bit fuzzy when searching for clear pictures of handheld computers with voice recognition commands, hypertext capabilities, graphics and moving images. Apple Computers' Knowledge Navigator professes these features to be under development. Alan Kay, Apple Fellow, says the best way to predict what will be the reality in the computer world ten years from now is to visit the development labs of today. Will a laptop, or handheld computer be capable of the colour multi-media presentations that we have been discussing? If multi-media stations become a consumer product will there be any future for laptop or handheld computers in education? Another future scenario might be cheap, handheld student-owned computers that plug into college file servers either on site or from the students' homes.

My best guess goes for larger, multi-media stations as a consumer product in the students' homes and schools.



**Challenges to the
College and the
College System**

Background Papers

Norman Rowen

**Toward a Self-Governing System:
Some Aspects of Quality and Proposals for Change**

Study Team 4

Toward a Self-Governing System: Some Aspects of Quality and Proposals for Change

Summary

[Editorial Note: This paper was prepared for Study Team 4 as part of their consideration of various aspects of quality. It was read in conjunction with other discussions on the topics of access, assessment, the learning process, general education and generic skills, and alternative delivery; as well as "Most Things to More People" (the summary of responses to "Pressures for Change, Opportunities for Development") and the many 'visions' submitted by members of the college community.]

The focus of this discussion paper is two-fold. First, to summarize the prevailing conceptions of 'quality' as expressed in the literature on higher education relevant to an institutional, rather a student or teacher, perspective. Included is a discussion of the relevance of program review and its importance to quality assurance. Second, to offer some proposals for Study Team 4's consideration aimed at enhancing quality across the college system.

The first section of the paper discusses five conceptions of quality derived from the literature. The 'reputational' view focuses on the status of the institution, its students, faculty and resources. A second perspective is the 'resources' view which, while related to reputation, employs more objective measures of the program and institutional resources including comparative evidence on expenditures per student, library and capital holdings, and student selectivity and is a widely used perspective in discussing the quality of Canadian higher education. A third perspective is the 'outcomes' view which attempts to relate program quality to identifiable outcomes including placement, attrition, employer satisfaction, faculty productivity and other measures stakeholders view as central to the success, rather than the processes, of instruction. A fourth approach is the 'value added' or 'talent development' view which asserts that the quality of a program is found in the development of learners. This view is most capable of examining the learning process as well as outcomes, and is seen as capable of measuring attainments for learners at all levels, irrespective of their longer-term academic or vocational success. A fifth perspective is the 'content' view which seeks to establish the relationship between the subject matter and competencies that learners are expected to achieve and the quality of the program as a whole; a perspective congruent with advocacy of increased general education and generic skills for all college programs. Included in the discussion of these perspectives are three distinctions: distinguishing quality from success, quality from satisfaction and distinguishing the quality of programs from that of individual learners.

The second section of the paper examines the topic of program review. Four major approaches are summarized from the literature. First, the 'goal-based' model seeks to examine the congruence between explicitly stated program (or institutional) objectives and measurable achievements. A second approach, the 'responsive' model, seeks to address the preoccupation with measurable results in the goal-based model through efforts to identify and respond to the concerns of stakeholders, both internal and external to the program, thereby focussing on the features of most relevance to those directly involved in the program. A third approach, the 'decision-making' model, is based on the assumption that evaluations are most effective to the extent that they provide the information relevant to actual decisions; though the problems of shared values and the limitations of rational decision making are cited. The 'connoisseurship' model is a fourth approach noted in the literature and widely employed in program and institutional evaluation. It shares with the reputational view of quality a focus on the evaluative judgments of experts. Some of the measures used and methodological difficulties likely to be encountered with respect to each approach are cited, as well as how the models are related to the different conceptions of quality.

The third section of the paper is divided into two parts. The first examines the need for and use of 'standards.' Based on consultations with the variety of stakeholders involved in Vision 2000 (as well as an

examination of recent Ministry documents), it is concluded that system-wide program standards are both necessary and desirable for college offerings and should be formulated to provide for six benefits (or to achieve these as objectives): (1) consistency of basic program features and clearly defined outcomes for all program graduates; (2) a clear definition of 'credits,' which in turn comprise programs for different credentials, which assist learners by assuring the equivalence of credits within and between colleges (including full-time and part-time offerings); (3) clearly defined entry standards common to all similar programs which, together with the provision of 'front-end' academic services, will serve to enhance the quality and efficiency of program offerings; (4) clearly defined program objectives, content and resources which assure that offerings are current to the needs of employers and are supported by appropriate curriculum and human resource development initiatives; (5) explicit provision in all program standards for individual college initiatives in the development of specific content and delivery forms to address local needs; and (6) explicit provision for system-wide formative evaluations of all programs on a regular basis, focussing on the objectives applicable to all similar programs and employing a variety of measures to systematically provide data needed for ongoing program improvement.

The second part of this section outlines a structure to enable these objectives to be realized. Characterized as a 'self-governing' system, three attributes are offered: (1) that decision-making is 'inclusive,' i.e., that all programs and activities are the appropriate domain of the structure, irrespective of source of funding; (2) that governance is 'representative,' i.e., that both internal and external stakeholders are included in appropriate bodies; and (3) that decision-making is 'collaborative,' involving a commitment to cooperation, rather than competition, with other providers, government, industry, unions, professional associations, etc.

The structure offered includes a proposed College System Coordinating Council with overall responsibility for the academic policies of the colleges (including admission, assessment, preparatory and remedial activities, general education and generic skills guidelines, exit standards and program review). It would act as the 'parent' body for three other structures: (a) program councils which would be charged with establishing policies in their subject areas including standards, program objectives, program approval and review, and provisions for assuring that offerings are current (with respect to curriculum, capital and human resources); (b) an access council with responsibility for ensuring the availability of appropriate assessment, preparatory and remedial activities that will address the colleges' commitment to learners which defines access as the opportunity to succeed; and (c) a provincial institute for advanced studies which would operate 'without walls' and have responsibility for granting degrees in a limited number of programs which combine offerings from both colleges and universities. Some specific policy areas (e.g., program approval) are briefly discussed.

Sommaire

[Notes de l'auteur : Ce document, préparé pour le groupe d'étude 4 dans le cadre de l'examen des éléments déterminants de la qualité du système collégial, a fait l'objet d'une lecture parallèle à d'autres traitant d'accès, d'évaluation, de processus d'apprentissage, d'enseignement général et d'aptitudes de base, et enfin de nouvelles options de prestation de services. Sa présentation a par ailleurs coïncidé avec la publication de « Des services presque complets pour un plus grand nombre d'apprenants » (la synthèse des réponses à « Pressures for Change, Opportunities for Development ») et des nombreuses « visions » soumises par les représentants des collèges.)

Ce document de travail comporte deux volets. Il résume tout d'abord les notions dominantes associées au terme « qualité » à en juger par les textes traitant d'enseignement supérieur du point de vue de l'établissement, et non du point de vue de l'étudiant ou de l'enseignant. Cette première partie discute aussi de l'importance de la révision des programmes pour garantir leur qualité et remet en question les méthodes utilisées à cette fin. Il soumet ensuite au groupe d'étude 4 des propositions pour rehausser la qualité de l'ensemble du système collégial.

La première partie de ce document aborde cinq conceptions de la qualité définies d'après des publications antérieures. Celle qui attache le plus d'importance à la réputation d'un établissement tient compte de son statut, de ses étudiants, de son corps enseignant et de ses ressources. Celle qui se base principalement sur les ressources est aussi sensible à la réputation, mais juge de façon plus objective les moyens à la disposition des établissements et mis au service des programmes, notamment en comparant les dépenses engagées par étudiant, la collection des bibliothèques, les avoirs en capital et la sélection des étudiants; cette notion est souvent reprise dans les débats sur la qualité de l'enseignement supérieur du Canada. Une troisième conception se base davantage sur les résultats et tente de faire un rapprochement entre la qualité des programmes et les résultats concrets, notamment le placement des étudiants, la déperdition des effectifs inscrits aux programmes, la satisfaction des employeurs, la productivité du corps enseignant et d'autres éléments que les personnes concernées estiment essentiels au succès, plutôt qu'au fonctionnement, d'un établissement. Une autre conception met l'accent sur la valeur ajoutée ou la culture des esprits, soutenant que l'on reconnaît la qualité d'un programme au fait qu'il motive les étudiants à apprendre; les tenants de ce point de vue sont davantage portés à examiner les méthodes d'enseignement et leurs résultats, et à mesurer les connaissances acquises par les étudiants à tous les niveaux, quelle que soit leur réussite scolaire ou professionnelle à long terme. La cinquième et dernière conception repose sur le contenu; elle cherche à établir le lien entre la matière enseignée, les compétences que les étudiants sont censés acquérir et la qualité globale d'un programme; ce point de vue équivaut à prôner une amélioration générale du niveau d'enseignement de tous les programmes des collèges et des aptitudes de base qu'ils développent. La discussion autour de ces conceptions fait trois distinctions, à savoir qu'elle dissocie qualité et succès, qualité et satisfaction et enfin, qualité des programmes et qualité individuelle des étudiants.

La deuxième partie de ce document porte sur la révision des programmes. Elle résume quatre façons d'aborder la question d'après des publications antérieures. La première, qui s'appuie sur les objectifs, cherche à examiner la cohérence entre les visées explicites d'un programme (ou d'un établissement) et les résultats concrets. La deuxième, plus réactive, oppose à la préoccupation avec les résultats concrets du premier modèle des actions qui visent à identifier les problèmes soulevés par des personnes internes ou externes au programme et à y répondre; elle est principalement axée sur les questions qui intéressent le plus les personnes qui participent directement au programme. La troisième met l'accent sur la prise de décision et part du principe que pour être valable, une évaluation doit faire ressortir les données pertinentes aux décisions concrètes; l'énoncé de cette méthode aborde la notion de valeurs communes et les contraintes de la prise de décision rationnelle. Les publications antérieures permettent aussi de cerner un nombre considérable

de protagonistes qui, dans l'évaluation des programmes et des établissements, non seulement tiennent compte de leur réputation, mais se fient à des connaisseurs ou à des experts dont ils suivent les avis. Le document énonce les valeurs mesurées dans le cadre de cette révision, ainsi que les difficultés particulières rencontrées avec chacune des quatre méthodes d'évaluation, et il fait un rapprochement entre ces méthodes d'évaluation et les différentes conceptions de la qualité.

La troisième partie de ce document est divisée en deux sections. La première examine la nécessité d'instaurer et d'appliquer des « normes ». À la suite de consultations des différentes personnes directement concernées par Vision 2000 (et après analyse des publications récentes du ministère), l'auteur conclut qu'il est à la fois souhaitable et indispensable de soumettre les programmes des collèges à des normes homogènes à travers l'ensemble du système. Selon lui, ces normes doivent viser six objectifs : (1) uniformiser les éléments de base des programmes et définir clairement les résultats que doivent atteindre les étudiants pour réussir ; (2) définir clairement les « crédits » applicables à des programmes pouvant mener à des certificats ou diplômes différents, ce qui serait fort utile aux étudiants (qu'ils poursuivent des études à temps plein ou à temps partiel) pour vérifier l'équivalence des crédits entre les différents programmes d'un collège ou entre différents établissements ; (3) définir clairement les critères d'admission à tous les programmes similaires, ce qui, en plus des services offerts aux étudiants avant le commencement des programmes, contribuerait à améliorer la qualité et l'efficacité de ces derniers ; (4) définir clairement les objectifs des programmes, leur contenu et les ressources dont ils disposent, afin de veiller à ce qu'ils correspondent bien aux besoins des employeurs et soient assortis d'initiatives appropriées quant aux disciplines enseignées et à la qualité du corps enseignant ; (5) prévoir explicitement dans toutes les normes des programmes la prise d'initiatives individuelles par les collèges dans le cadre de l'élaboration du contenu et de la prestation des cours pour répondre aux besoins locaux ; et enfin (6), prévoir explicitement des évaluations périodiques des programmes dans l'ensemble du système en mettant l'accent sur les objectifs communs à tous les programmes de même nature et en ayant recours à des mesures diverses pour diffuser de façon systématique les données nécessaires à une amélioration constante des programmes.

La deuxième section trace les grandes lignes d'une structure permettant d'atteindre ces objectifs. Qualifiée d'« autonome », cette structure est fondée sur trois principes : (1) que la prise de décision est « inclusive », c'est-à-dire que tous les programmes et activités sont du domaine de la structure, quelle que soit leur source de financement ; (2) que la régie est « représentative », c'est-à-dire que les personnes concernées, qu'elles soient internes ou externes au système, sont représentées de façon adéquate dans les différents organes ; et (3) que la prise de décision est « collaborative », c'est-à-dire qu'elle entraîne la coopération et non la concurrence avec d'autres fournisseurs de services, le gouvernement, l'industrie, les syndicats, les associations professionnelles, etc.

Avec cette structure, l'auteur propose également la constitution d'un conseil de coordination pour le système collégial, responsable en dernier ressort des politiques des collèges (concernant les admissions, les évaluations, les activités de préparation et de rattrapage, les directives pour l'enseignement général ou les aptitudes de base, les normes de sortie et la révision des programmes). Ce conseil ferait office d'organisme central coiffant trois autres organes : (a) des conseils responsables des programmes qui établiraient les politiques dans ce domaine, notamment les normes, les objectifs, l'agrément et la révision des programmes, ainsi que des mécanismes assurant l'actualité des cours offerts (en ce qui concerne leur contenu et les ressources humaines et financières mises à leur disposition) ; (b) un conseil d'accès chargé de mettre sur pied des activités d'évaluation, de préparation et de rattrapage adéquates compte tenu de l'engagement des collèges à motiver les étudiants à apprendre et de la définition d'accès comme étant la possibilité de réussir ; et enfin (c) un institut provincial pour les études avancées qui fonctionnerait « sans murs » et qui serait chargé d'octroyer des diplômes dans un nombre limité de programmes regroupant des cours collégiaux et universitaires. L'auteur aborde aussi succinctement d'autres domaines précis, comme par exemple l'agrément des programmes.

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Introduction

In preparing the discussion paper ("Pressures for Change") and the report of responses to it ("Most Things"), as well as in response to the Steering Committee's request, there appeared to be a number of issues related to 'quality' that merited further attention. This paper can be read in conjunction with those pieces prepared on other issues; e.g., on access and preparatory activities (Dance 1990), the learning process (Honsberger 1990a), general education and generic skills (Park 1990), alternative delivery (Allan 1990) and curriculum development (Honsberger 1990b), as well as the summary of visions (Honsberger 1990c), all of which have been received by the study team.

The following discussion outlines general conceptions of quality, approaches to program review and evaluation and some specific features to address identified concerns and enhance quality. This latter section can hopefully serve as a focus for considering recommendations to the Steering Committee with respect to a possible structure to help bring about desired changes which will enhance the quality of college offerings.

Preface: Some Reasons To Discuss Quality

There are many abstract reasons to examine quality, but several important practical ones as well.

1. If responses to the discussion paper are an indication, it is a relevant topic to many people. It is possibly made more relevant because of the competition of private trainers and the pressure of costs, which finds the system wanting to ask governments to provide funding to the colleges because the 'quality' is higher, even if the costs are also.
2. Similarly from the focus groups, the acceptance of technological changes and the pressures of declining enrolment suggest that 'quality' may need to be a selling point to prospective students (i.e., defining quality in relation to 'relevancy'). Despite the acknowledgment that the number of people needed in 'high tech' occupations is relatively limited, most assume that the overall level of knowledge, skills and abilities required will increase and our labour force, as a whole, is in need of development if we are, collectively, to compete.
3. The issue of quality was raised directly to, and by, the system in the IARC report (July 1985). Skolnik et al suggest two related problems (the first directly, the latter indirectly): (a) is the lack of systematic attention to quality an indication, in itself, of its absence? (IARC:83); i.e., any enterprise that has little or no quality control probably doesn't value quality?; and (b) in the absence of processes and indicators for examining quality, how will we know whether (or how) it has changed? (While the IARC report noted the relationship between workload and quality PRIOR to what were hoped to be major changes, it is unclear who, if anyone, would say that quality has changed since (and if so, on what basis. While reductions in workloads may have resulted in an increase in quality, in the absence of agreement on what 'it' is, the public (and governments) can have little appreciation of the need for increases in expenditures that the system seems to want and need (if the focus groups are representative).
4. Industry wants more and/or different knowledge, skills and abilities (from Study Team 2's focus groups and related to (2) above), but we're not really sure what these are or how they can be provided. However, broadening the focus seems important to many (not necessarily all) employers, but is unlikely to be funded without clearer reasoning and a commitment to more tangible (measurable?) outcomes (i.e., how graduates will be noticeably different from what they are now).
5. The program policy review being conducted by the Ministry of Colleges and Universities raises a number of quality-related concerns under the rubric of developing policies related to program approval, program content and program evaluations. These topics have been discussed in the focus groups and clearly require policies, which may be developed in conjunction with recommendations from the study team with respect to the structure,

organization and governance of the system. In addition, MCU papers on "Provincial Program Standards" (April 1989) and by the Ministry's Accreditation Review Committee (June 1989) cite the need to develop clear policies in these areas.

All of these add up to a rationale which indicates that it is in the public interest for the colleges to elaborate on how quality might be enhanced to meet the challenges of the coming decades.

Following discussions of approaches to quality and models of program evaluation, some major conclusions, based on academic sources and system responses, are offered in the context of possible recommendations.

Conceptions of Quality ¹

"Quality has proven to be an elusive concept." (Scott 1981, quoted in Marcus, Leone and Goldberg 1985:3)

The literature on 'quality' in higher education is largely U.S. and, as such, relates to the broad spectrum of institutions; private, as well as public; degree granting and non-degree granting colleges; and the considerable variety of institutions which perform activities that parallel those of the CAATS. The basic conceptions put forward, however, can be assumed to apply, in some measure, to the Ontario colleges if understood in the broadest terms. Five basic perspectives on quality have been suggested: reputational, resources, outcomes, value-added and content.

The reputational view suggests that quality institutions (and programs) develop reputations in the minds of stakeholders (and the public at large to the extent they are informed). Potential students and employers come to view the institution/program as relatively good or bad, better or worse than other programs. For example, college X is perceived to have a good program in ECE or at least is thought to have a better one than college Y. The evidence for such judgements may be 'anecdotal' (e.g., a secondary school guidance counsellor says that former students told him; or he deduced it from former students reporting on several different programs). Sometimes the judgement is based on more 'objective' measures (e.g., placement rates from different institutions, in the U.S. case, surveys of or reports by 'experts' in the given field, usually as part of a review and usually external to the institution). To the extent that 'better' students, faculty, or resources flow to that program or institution (presumably based on such reputational information) the result may be self fulfilling (that is, the program at college X is better because it has better people, resources, etc).

This view, of course, obscures what factors and experiences have led to the reputations which are being communicated. Testimonials of different kinds are seldom clear as to their basis, and surveys and rankings such as those cited for the U.S. are rare in Canada. Additionally, it is unclear, in the case of 'expert' evaluations, how different factors relate to the quality of instruction given the U.S. propensity for experts to consider non-instructional factors such as research and scholarly writing.

A related perspective is termed the resources view, and is based on the notion that objective measures of an institution's or a program's resources can give a clear idea of quality. Numerous indicators, taken together, are thought to show the 'richness' of one program over another. For example, student demand and, related, student selectivity might be assumed to indicate quality (as in "higher quality programs are more selective in who they accept"); equipment and library resources (as in a program advertising its new equipment acquisitions or the volume of its library holdings may be assumed to be of high quality); in the U.S., faculty resources are sometimes reported (as in X percent have Ph.D.s or reporting teaching loads and student/teacher ratios) all in either absolute or relative terms. There is, of course, benefit in a conception for which there are readily available and objective measures. However, it has been noted that there is

"little evidence (to) support the view that more resources equate with increased student learning" and that "the resources approach places a false ceiling on the amount of quality that can exist by asserting that such resources as bright students and prestigious faculty are finite" (Astin 1980; 4, quoted in Conrad and Wilson 1985:53). Many lobby groups are using such a framework when asserting, for example, that one province spends more or less per student than another. These groups are implying, if not stating directly, that more spending necessarily results in higher quality of learning or instruction.

The outcomes view attempts to relate quality to results and probably comes closest to how many stakeholders common-sensically conceive of quality. Data such as graduate placement rates (and starting salaries), attrition rates, employer surveys (and, in the U.S., faculty productivity measured by publications, etc.) are seen to be good indicators of program quality from the perspective that good outcomes flow from quality programs. This perspective, however, assumes that the outcomes being measured and compared result from features of the programs in question and that the contribution of the program to these outcomes can be distinguished from other factors. (As this view is predominant to many looking at the colleges, more questions are posed below).

Another approach has been termed the 'value-added' view, associated with Astin and the talent development perspective (see Astin 1987) and based on the notion "that true quality resides in an institution's ability to affect its students favourably; to make a positive difference in their intellectual and personal development" (Astin 1980; 324 in Conrad and Wilson 1985: 54). In such a view, quality programs 'add' to learners and the contributions can be readily measured by pre and post-tests, self-reports, and evaluations by both faculty and students. The benefits of such an approach to quality includes its relevance to learners entering at any and all levels, its focus on factors integral to the program itself (i.e., what 'learning' has indeed occurred) and the ability to use recognizable data (especially pre-and post-tests) as the basis for judgments about quality. Major difficulties with this view include the problem of defining what will be learned (and how they might be measured), the cost and complex record keeping of a specific and sophisticated system for monitoring student achievements at all levels, and what role 'non-instructional' factors play in either aiding or inhibiting an individual's learning.

A fifth approach can be termed the content view and is based on the notion that quality is evidenced by the breadth of an institution or program. This perspective, usually suggested by those advocating greater liberal arts, appears rooted in the notion that certain content is fundamental to a quality education. For the Ontario colleges, such a view is congruent with advocacy of general education, a core curriculum and/or the development of 'basic' or 'generic' skills on the assumption that those experiencing such content will, on the whole, be of a higher calibre than those who do not. Exposure to such content is viewed as necessary (though not sufficient) to a quality education. (In the U.S., institutions with broader content requirements are for the most part, viewed as more prestigious than those with a narrower focus). The limitations of the content approach include the problem of agreement as to what content is congruent with quality, given that taste is a major factor in such preferences. It is also unclear how different elements of content, in and of themselves, contribute to learners knowledge, skills and abilities in the variety of potential pursuits. Additionally, it is difficult to relate the desirability of having particular content to the quality of instruction and learning across the range of other content and skill areas. (Astin (1987) concludes that this approach is less widespread than other conceptions and is difficult to evaluate in the absence of more research evidence, presumably on achievement and learning outcomes of those in programs with significantly different content of a general or basic nature).

While the above is but a brief summary of major approaches it may be useful to note some of the ways each may be related to colleges. With respect to the reputational view, numerous comments have been made through Study Team 2 and Study Team 4 focus groups, as well as by individuals across the system, about the image of the colleges (and/or of particular programs at particular institutions). The focus of many has been that the system's problem is one of how it is perceived rather than (the quality of) what it achieves. Many offer examples of how college graduates and courses are treated 'unfairly' by employers, educators (university and secondary schools) and professional associates (See Skolnik 1988 for a discussion of questions concerning where nursing education might be offered; in particular, whether changing R.N.

requirements will necessarily alter the quality of preparation or even whether quality is at issue. Similarly, does shifting, for example, physiotherapy and occupational therapy training appreciably alter its character; or, in such case, are image concerns dictating educational, and possibly resource allocations.)

With respect to the resources view, different groups of stakeholders have invoked resource measures as indicators of quality. Advocates of increased expenditures suggest that increasing funding per student will result in higher quality (see Skolnik and Rowen (1984) for a discussion relative to university expenditures). Similarly, reducing student-teacher ratios and faculty workloads are advocated as 'quality improvements.' Finally, increasing admission standards is frequently offered as an elixir for the perception of 'mediocrity.' In none of these three instances is there agreement that, in and of themselves, 'quality' will improve. Nor are there measures readily available for testing such propositions, though a variety of outcome measures might be used for such purposes. Each rests on the belief that such 'resource' changes do, by definition, imply higher quality. With respect to student selectivity, Patricia Cross' observation may be especially relevant to the colleges.

The tough problem is not in identifying winners; it is in making winners out of ordinary people. That, after all, is the overwhelming purpose of education. Yet historically, in most of the periods emphasizing excellence, education has reverted to selecting winners rather than creating them (quoted in Parnell 1985: 7).

As noted, those subscribing to the outcomes approach appear to have common sense on their side in examining the quality of college offerings. As vocationally oriented institutions, colleges (more than universities) are assumed to be oriented to definable outcomes. As an indication of program quality, however, such a view has been limited by the available measures. Three practical distinctions related to outcomes may be posed: distinguishing quality from success; distinguishing quality from satisfaction; and distinguishing individuals from programs.

1. Distinguishing Quality from Success

A student may or may not be successful, depending on a variety of exogenous factors, both individual and labour market. The program may be of high quality without this translating into labour market success. Alternatively, a program may be successful (high enrolment, desire by business, industry), without it being of high quality. If this were not true, definitions and distinctions would be meaningless (i.e., a program would simply be defined as of high quality if its graduates are desired and/or successful). However, graduates could be desired but not successful (depending on how 'success' is defined), given particular labour market conditions; or are graduates to be considered of low quality if they appear to be undesirable and/or are unsuccessful, for whatever reasons, possibly related to economic conditions rather than their program or personal attributes? Under such an equation, low enrolment would mean low quality. However, low enrolment may bring higher demand for (fewer) graduates. None of this is necessarily related to the quality of the program, of the education and training offered or of the learning from which the student and society may, at some point, benefit.

Can we/should we have quality determined by 'economic,' rather than 'educational,' factors? And if the 'economy'/'market' is to determine quality (defined as success), do we consider 'quality' to have suffered whenever there is a 'downturn'?

2. Distinguishing Quality from Satisfaction

It is likely that those in varied locations will report satisfactions and/or dissatisfactions based on factors largely irrelevant to the program. This applies to both employers and students/graduates. Satisfaction, for both employers and graduates, may be based on their feelings about their jobs (and the relative contribution of the program) at the time and affected by the circumstances they experience at that moment. For example, if one year after being hired, a graduate is faced with a challenge at work based on factors related to the employer's position in the market, his perception and that of the employers may be of apprehension or doubt, or of not being given the opportunity to display and utilize his skills; none of which

necessarily is a function of the education received or the knowledge acquired. Similar to the problem of distinguishing quality from success, equating quality with satisfaction assumes a relationship that is mediated (or confounded) by factors of context. In addition, the satisfactions of outside groups (e.g., ministries, accrediting bodies, licensing bodies, etc.) may be influenced by contextual factors not attributable to the program of study.

3. Distinguishing the Quality of Programs from that of Individual Students

Evaluating students is necessarily different from evaluating the program. What is a useful distinction between approving or accrediting a program and graduating or 'licensing' a practitioner? Are all employers engaged in a *de facto* licensing procedure through hiring? If it is important to separate the program from the graduate (for purposes of assessing quality), what role will be played in the development of programs by those evaluating graduates? Does the influence of what is 'desired' in graduates come to dictate program elements? Conversely, do the attributes of graduates relate to a standard of desirable content that is academically, rather than practically, based?

How important is "who is doing the evaluating?" i.e., does it matter in terms of quality of the program, if it is done by an outside group? Does it matter who evaluates individuals? Is there any reason to assume that outside groups will bring greater knowledge or a more appropriate perspective to the evaluation of graduates? of programs? Should there be parallel processes (i.e., the same bodies responsible for both program and student standards)? or is this simply a matter of 'perception' (i.e., that outside bodies will be better, though the reasons are unclear)?

As noted, a major dilemma regarding the content approach, as applied to the colleges, is how to distinguish those elements of content that are matters of 'taste' from those which might have widespread support as necessary (though not sufficient) conditions for quality; i.e., defining what is a college graduate. The preferences of employers and educators (administrators and faculty) as evidenced in the Study Team 2 and Study Team 4 focus groups, respectively, suggest elements which are shared (see Park 1990 for some elaboration). The perception of learners, however, are less clear, though there is some suggestion that many wish to focus on job relevant skills, rather than general education, and would evaluate the quality of their education in terms of occupational attainment, rather than the breadth of their knowledge. The content approach to quality appears to hinge on the value attached to the different kinds of content, independent of the educational process and its outcomes, though it may be related to both.

Finally, the value added approach is implicitly used to define the participation of those in a number of programs, most notably those in preparatory programs and those targeted by various levels of government. While certain outcomes may appear to be reasonable, to the extent that 'progress' is made, that access is afforded, that the student is retained or progresses (rather than leaves the program), success (if not quality) is, perhaps properly, assumed. While Astin would apply such an approach to the entirety of college activity, it appears, in fact, to have been relegated to those offerings aimed at those for whom the colleges attempt to provide "a second chance." Astin's view of the applicability of his approach, however, is based on the congruence between this approach and his three criteria for evaluating the different conceptions of quality: (a) consistency with institutional purposes; (b) promoting excellence in the system as a whole; and (c) promoting educational equity. (Astin 1987:49) [Astin asserts that the reputational and resource views meet none of his criteria and are simply mutually reinforcing. The outcomes view would meet the first criteria with more stringent admission standards, thus denying the equity criteria and may, in his opinion, improve overall system quality if each institution applies it with the intention of strengthening its educational development programs. As noted above, however, if outcome measures appear unrelated to program features, they are of limited use.]

Program Evaluation and Review ²

"Quality is an intrinsic attribute that may be inferred but never precisely determined. A judgement, albeit one fraught with value predispositions, is required to transform a series of quality measures into a decision about the attribute of quality itself." (Wilson 1982: 102)

This section will outline alternative approaches to program review with reference to how evaluations of programs may assist in assuring program quality. There is, of course, an argument to be made that the initial point of quality assessment is that which might occur as part of the program approval process. There are, however, two major reasons for NOT discussing quality in the context of program approval decisions. First, the current 'program policy review' of the Ministry of Colleges and Universities is considering program approval as a major topic of its work and the Study Team and Steering Committee may wish to consider that report when it is formally released. Second, and more importantly, program approval processes for Ontario's colleges have had a variety of goals and objectives, only one of which has been the consideration of quality. While this, in itself, does not suggest that program approval decisions could not be made with reference to quality, it is important to note that other purposes and circumstances limit the utility of approaching quality through program approval. (Such processes, historically located in the Council of Regents, have understood that program approval can reasonably examine only the conditions under which a program is offered, which may be termed the 'inputs' to the program, leaving the learning process and 'outcomes' unaddressed. It may be noted that, while there have been some calls for considerable more attention to outcomes (e.g., Zaharchuk and Palmer 1978), neither the Council nor any other system-wide body sought to institute any formal procedures for system-wide reviews analogous to the program approval process).

The importance of program design, however, may be considered in light of program approval objectives. In particular, decisions to approve and, therefore, to fund a program may be seen to establish 'comparability' as an objective in assessing design. Programs which are designed to meet other criteria, such as labour market or societal need, may be eligible for approval to the extent they are comparable to existing offerings in major elements of design (e.g., duration, curriculum, human and capital resources required, etc.). To the extent a program offers a similar design, its 'quality' would not likely be seen to be at issue and a decision on whether to approve a program would likely be based on other criteria not directly related to quality. This may indeed be appropriate. However, such a view borrows heavily from the 'content' approach to quality with the resulting limitation that outcomes and process considerations may (appear to) be neglected.

Approaches to Program Review

"The problem is that no one has yet found a way to measure quality directly." (Conrad and Wilson 1985:150)

A number of purposes have been identified as reasons for program reviews. First and foremost has been that of improving the quality of programs (though this can be interpreted in a number of ways, as the preceding sections show). Additional reasons include meeting the requirements of funding bodies, demonstrating responsiveness to a variety of stakeholders, providing information relevant to funding decisions and for planning of resource allocations (see Conrad and Wilson 1985:11-14). (In addition, some suggest that institutions sometimes undertake program reviews in an effort to avoid greater intrusion by governmental bodies; i.e., to maintain autonomy in the face of pressures for increased governmental regulation.) While many suggest that reviews ought not attempt to meet multiple purposes (Conrad and Wilson 1985:67), it should be acknowledged that most program reviews are, in fact, used to address other issues, in addition to quality; most particularly, resource allocation decisions.

The distinction between these two major purposes (quality and resource allocation) corresponds, in some cases, to the distinction between 'formative' and 'summative' evaluations on the one hand, and institutional and system-wide reviews on the other. In many instances, individual institutions perform formative reviews aimed at improving program quality, while governments or intermediary (or accrediting) bodies perform summative evaluations for the purposes of determining program continuation and/or funding. (See Conrad and Wilson 1985, and Marcus Leone & Goldberg 1983 for examples). Mixing these two major purposes has been concluded to be essentially problematic. "A good illustration of inherent conflict can be found in reviews that seek both program improvement and resource reallocation." (Conrad and Wilson 1985:67) Program reviews with respect to quality have been characterized by four main approaches: goal-based, responsive, decision-making, and connoisseurship (Conrad and Wilson 1985).

The goal-based model: "defines evaluation as the process of identifying program goals, objectives, and standards of performance; using various tools to measure performance, and comparing the data collected against the identified objectives and standards to determine the degree of congruence or discrepancy" (Gardner 1979 in Conrad and Wilson 1985:20). In this model, the most important components of the evaluation design are the identified goals, objectives and criteria used to judge relative success or failure (Conrad and Wilson 1985:20). While reviews using this approach are more likely to be summative than formative, such an approach is basically congruent with an 'outcomes' view of quality. As such, it is likely to be favoured by those who perceive the success of a program to be measurable by defined outcomes (e.g., student placement, proportion of students able to perform a particular task). By defining specific objectives and indicators, one could establish the effectiveness of particular initiatives (e.g., specific programs to reduce attrition, alternative delivery forms, etc.). Its main weaknesses are the inability to relate all outcomes to program goals or objectives and, perhaps more important, its interest in outcomes as opposed to 'process,' i.e., its concern with results rather than the quality of the educational process. (To the extent that 'process' goals were specified — and measurable — it is possible to include such measures as well.) As a system-wide approach, the goals specified and measures used to indicate achievement would have to be common, or comparable, across institutions with the (perhaps unintended) effect of being prescriptive in areas, such as delivery or specific content, where greater variation might be desirable. Features of a program which are not able to be couched as specific goals or are not readily quantifiable would emerge with great difficulty, if at all.

To counter such difficulties, the responsive model might be viewed as an alternative. This model "emphasizes the political, as opposed to technical, nature of evaluation" (Skolnik 1988:11) and involves efforts to identify and respond to the concerns of stakeholders, be they internal or external to the program. "The strength of this model is that it can help those responsible for a program to understand both its actual achievements and where action is needed" (Conrad and Wilson 1985:48), and focuses more on activities than on stated goals and objectives. It is intended, therefore, to emphasize those features most important to the needs of stakeholders involved in the program (e.g., students, faculty, administrators, employers, etc.). While its strength may be as "a process of collecting, analyzing and interpreting information about a program in light of the concerns and issues of audiences that have a stake in the evaluation" (Conrad and Wilson 1985:24), its major weaknesses flow from its methodological approach. Specifically, an emphasis on qualitative methods to elicit concerns may not lead to themes or issues which are comparable, either between different stakeholders or among programs (of the same type) at different colleges. Given likely differences among groups in what aspects of quality are most important, consensus on program changes to enhance quality would likely be difficult to achieve. As part of a formative evaluation, however, the responsive approach would find less "falling between the cracks."

A third approach, the decision-making model, is oriented to providing information relevant to the needs of decision-makers, based on the assumption that the results of an evaluation are most likely to be useful when focussed on the actual needs and issues under consideration. Two major criticisms are cited, however; first, whether the values, concerns and criteria stipulated by the decision-makers are shared by other stakeholders; and, second, "those associated with rational decision-making (e.g., being able to anticipate all decision alternatives in advance)" (Skolnik 1988:12). Both problems would be major obstacles to establishing the general legitimacy of decision-oriented evaluations, given the likely

discrepancies in perceptions among stakeholders. (The difficulty of effecting program cancellation may be an example of such problems.) Given that different decision-making bodies have assumed or been granted responsibility (e.g., program advisory committees, college administrators and boards of governors, provincial ministries, and federal departments) it is likely that criteria and information requirements for decision-making might vary considerably and be administratively burdensome. (See, for example, those cases cited by Marcus, Leone & Goldberg (1983:13), such as the 15 federal, 31 state and 9 county forms required of Brevard Community College during a one month period). In addition, it is also unclear how the decision-making model addresses dimensions of quality which are not the subject of decision-making.

Finally, the connoisseurship model of evaluation shares with the reputational view of quality a focus on the evaluative judgments of experts, usually outside the particular program in question. In this model it is the values, issues, and methodology of the evaluator that essentially determines the review. Results from such efforts are least likely to be generalizable or applicable to other similar programs and, as might be expected, 'reliability' will likely be quite low. To the extent the evaluator is a respected expert, the legitimacy of the review might be quite high and the use of external teams might address some of the reliability problems (and comparability issues, if the same evaluators were used system-wide).

Based on the consultations of Study Team 4, the relevance of the above for new policy is clear: while there may be considerable disagreement as to who should be responsible for the review function and what orientation should guide it, there has been no disagreement that such a process is required or desirable for the system as a whole. It has, to this point, been assumed that individual colleges have the responsibility for assuring quality (MCU June 1989). To suggest that system-wide program review is appropriate would be a significant departure from current practice. The results of research and consultation undertaken by Vision 2000 suggest that the assurance of program quality on a system-wide basis is, in fact, a desirable change. This conclusion is evidenced from the consultation of study teams 2 and 4 (representing stakeholders from outside and within the colleges, respectively). It is further supported by the consultations reported by the Ministry's discussion paper on provincial program standards (MCU April 1989). While there are numerous considerations about the scope and specificity of system-wide standards, the desire for such standards (and, it is assumed, their associated benefits) appears to be widespread.

Prior to offering a tentative proposal relevant to the colleges, a brief comment on accreditation may be useful. As discussed in "Pressures for Change" (Rowen 1989), the certification of either students or programs may be considered as vehicles for assuring quality, and may either be determined at the individual institution or external to the institution. Traditionally, institutions have assumed responsibility for both processes at the most basic level; i.e., the evaluation of students for the purposes of awarding credentials and the approval (or termination) of programs of instruction and curricula. As noted, there currently exists considerable pressures to have additional forms of quality assurance. Historically, some professional and practitioner bodies have exercised, often under statute or regulation, a certification and/or licensing function outside the educational system. Similarly, in some jurisdictions, external reviews of programs or institutions are carried out by accrediting bodies, also external to those actually delivering the program. In the U.S., institutions as a whole can, voluntarily, subject themselves to accreditation procedures. In Canada this is rare, with private institutions being the main exception (e.g., business programs under the Association of Canadian Career Colleges). Historically in Ontario, a select number of college and university programs, predominantly those offered through professional faculties, have been subject to external program review which constitutes a *de facto* accreditation process for such programs (e.g., graduate programs through the Ontario Council for Graduate Studies). In nearly all other instances, program standards and evaluation are either explicitly delegated to the institution or are carried out (often on an ad hoc basis) by government funders. This includes the program approval processes as applied to the colleges, and evaluation by other Ministries (e.g., MSD) or departments (e.g., CEIC) of programs offered under their auspices. The rationale for this appears to rest on the value ascribed to 'institutional autonomy.'

While institutional accreditation has not been a major issue with respect to the colleges, program accreditation and the certification of graduates have been the subject of discussion. Without reiterating the discussion offered in "Pressures for Change," it may be noted that several practitioner bodies have

sought to establish their authority over who will be allowed to be employed in a particular field. Such attempts at 'licensing' have been allowed in relatively few instances and generally under the rubric of safeguarding the public health. It may be noted, however, that the notion of the 'public interest' may be reasonably expanded to other areas; namely, that assuring a high standard of competence of all graduates is in the broader interest, not only of employers, but for economic productivity as a whole. More specifically, the ability to foster the 'employability' of many not heretofore considered to be part of the active labour force may be considered (as the Social Assistance Review Committee [SARC] did) to be similarly in the public interest, both materially and socially.

In general, question have been raised concerning who ought to have responsibility for such *de facto* licensing and the possible problems of professional self interest involved (See MCU June 1989). An additional problem, however, exists regarding how the certification of graduates relates to the accreditation of programs, and whether the implicit authority of external licensing of individuals does not ultimately serve to steer program elements, including course content and delivery. It is clear that most members of the college community are concerned about arrangements that would either directly or indirectly impose constraints upon program elements and therefore limit their ability to meet the educational needs of learners. In an effort to address this problem, it may be useful to consider the importance of separating educational from professional certification. This distinction applies to those university programs where associations have been allowed to license through a process which is essentially separate from the professional faculties responsible for instruction. In general, there appears to be some reason to limit the authority of such bodies to those where absolute standards of competence must be — and can be — assured under explicit government regulation.

Conversely, the accreditation of programs can be viewed somewhat differently. With respect to the colleges, it may be suggested that Ministry program approval constitutes a form of initial program accreditation, given an orientation that views accreditation as a process aimed at determining if minimal conditions are present for meeting program objectives. This is the view offered by many (U.S.) commentators who support current accreditation processes (see, for example, Young and Chambers 1980:91, quoted in Marcus, Leone and Goldberg 1983:17). Criticism of this view, however, has centered on the problem of determining even a minimal level of quality with reference to such conditions. While characteristics such as clearly defined objectives and adequate resources (including staffing) may be necessary conditions for quality, they may not be sufficient. With reference to Ontario's colleges, Zaharchuk and Palmer note that "because accreditation focuses on educational resources or inputs ... the accreditation focus tends to be on 'lowest common denominator' standards" (1978:68). Some (e.g., Trout 1981) have suggested that evaluation of programs must be centred on outcomes, rather than simply on conditions, as a requirement for a positive judgment. (It should be noted that Trout found little, if any, correlation between accreditation criteria used in the U.S. and the achievements of students, a finding more recently noted by Haggarty and Stark 1989.)

These two views can be related to the approaches to quality and program review models outlined above, and have different implications for the colleges. The perspective which orients to 'conditions' is congruent with the content, resource and reputational approaches to quality and the connoisseurship model of evaluation (which is described as the dominant approach in reviewing Ontario university programs, as discussed in Skolnik 1988). Alternatively, orienting to 'outcomes' is more congruent with the value-added and outcomes approaches to quality and the goal-based and decision-making models of program review. (The responsive model might be seen to be compatible with either view, depending on the orientation of stakeholders and whether reviews are institutional or system-wide.)

Thus, in considering what forms of quality control or assurance might be most beneficial in relation to college programs, the objectives of any process must be clearly understood. If value is placed on allowing individual institutions to define and assure quality, the orientation to conditions (at a system level) would appear to be most appropriate. If, however, values of comparability, 'absolute' standards, and meeting clear program objectives (of a system-wide nature) are paramount, a focus on outcomes would be more useful.

In summary, two basic purposes of program review can be considered: (a) quality assurance and program improvement, which can include the extent to which objectives are achieved (or achievable); and (b) decision making needs, which can include decisions on resource allocation. In the context of the colleges, with the exception of aggregate funding levels and those few programs subject to mandatory accreditation, both purposes have been, historically and explicitly, college rather than system functions. The perceptions gathered as part of the Vision 2000 process may be seen to question this orientation. It is, therefore, important to ask what values and principles should guide the college's approach to quality and how these might be made concrete; the topics addressed in the remainder of this paper.

Toward a Self-Governing System

Quality does not happen by chance but is a result of continuous efforts directed toward maintaining and enhancing it (IARC:93).

Apart from the MSD activity with regard to training profiles, there is very little current activity in the college system related to the development and/or revision of provincial program standards documents (MCU April 1989:3).

The above discussion related to approaches to quality in general (coupled with the more specific topics of general education, assessment and preparatory aspects, curriculum development and alternative delivery, and instructional considerations discussed in the companion pieces prepared for Study Team 4) offer a number of substantive issues around which the system might organize the considerable energy and commitment to be directed at enhancing quality. In addition, the discussion paper ("Pressures for Change") and responses to it ("Most Things") offer additional observations and questions about which the Study Team and Steering Committee can usefully comment. This section will outline some principal conclusions (or, perhaps, conclusions about principles) that might be pursued, followed by some features to enable these directions to be realized.

A. The Need For and Use of Standards

The single most compelling conclusion of the discussions related to quality issues may be the widespread belief that system-wide standards for college programs are both necessary and desirable. While dissent and disagreement exists (and is worthy of serious consideration) on specific features, a broad-based consensus appears to indicate that a major change from current (and past) approaches with respect to quality is appropriate. Support for this proposition is evidenced in the consultations with the college community and industry by Study Teams 4 and 2, respectively, as part of the Vision 2000 project. Additional consultations, conducted independently by the Ministry of Colleges and Universities, provide useful substantiation of this view from both college and industry sources. (MCU April 1989).

Several objectives and/or benefits are perceived to be attainable by the provision of provincial standards. First, consistency of basic program features would serve to assure students, employers, professional associations, etc. that graduates of a given program, from any college, had achieved a clearly defined level of knowledge, skill and ability in their field. While determining which outcomes (and at what level of proficiency) should be prescribed cannot be stated in detail, consistency across colleges is advocated by those consulted as fundamental to quality assurance.

A second benefit (or objective) from such consistency would be the ability of learners to accumulate credits toward a credential, serving as an enhancement of learners' access to college offerings. Such standards would allow for students to build upon program elements such as general education, generic and more specific competencies through units/courses. This would enable transfers between programs and colleges, provide for equivalence between full-time and part-time offerings, and enable learners to sequence their learning from certificate to diploma through advanced training. A clear understanding of program

requirements and expected outcomes at each level would be available to all involved in the educational process. (While a course- or credit-based system is implied, and supported in consultations, other provisions for granting and accumulating credits toward credentials may be possible.)

A third, related objective which might be realized is the establishment of consistent admission standards for similar programs. This should enable a higher level of learning and, coupled with remedial supports, greater retention (with resulting efficiency benefits). As such, the provision of 'front-end' academic supports is thought to enhance both the quality and the efficiency of program delivery (to a more academically homogeneous group of learners) while maintaining, if not enhancing, access.

A fourth objective addressed by consistent system-wide program standards is the requirement that programs be current; a criterion viewed as fundamental to quality by a broad range of stakeholders. (Would colleges otherwise come to be differentiated by how 'up-to-date' their programs were?) It is worth noting that comments by those involved in the MCU review of program standards indicated that the utility of many past provincial guidelines had been eroded over time. As the pace of technological change is acknowledged to be an important pressure (See "Mini-Scanning the Future," "Pressures for Change," "Most Things" for corroboration), the content of some program elements will need to be altered to ensure relevance (every three to five years, as reported in MCU April 1989:8). Provincial standards may provide a focus for such changes and their use can serve to ensure that needed revisions have, in fact, been implemented. Additionally, the requirements for both human and capital resources to be updated are, implicitly or explicitly, based on some idea(s) of what it means to be 'current.' System-wide standards would provide a clear focus of goals to be achieved in these areas.

The notion of 'critical mass,' implicit in the approach to accreditation based on 'conditions,' is centered on the ability to specify what resources — curricular, physical and human — are to be minimally required for quality to be achieved (or assured). While processes of accreditation, formal or informal, consider such requirements, the adoption of consistent program standards is seen to allow greater clarity in assessing the extent to which such elements are present and to provide support for addressing identifiable improvements. This, of course, references an additional (fifth) objective or benefit, namely, their use for program review and evaluation. This need not suggest a focus on 'conditions' as the basis for program review. Rather, standards allow reviews to consider both conditions and outcomes, depending on their specificity.

Prior to a discussion of some principles in the area of program review, it is important to offer a caveat with respect to the benefits of consistent program standards. In the consultations of both Study Team 4 and the Ministry of Colleges and Universities, participants gave voice to the dilemma posed in "Pressures for Change" (with reference to external accreditation, but clearly applicable to any system-wide standards or guidelines); namely, whether such standards would lead to limitations in the diversity of program delivery or an overdetermination of specific program elements ("Pressures for Change":18-20). The conclusion offered through both sets of consultations is that provincial standards must allow for (considerable) local variation in program delivery and specific program content for the purpose of responding to relevant and appropriate differences of both learners and employers. Such concerns appear legitimate and, as a matter of principle, standardization of specific content and delivery features may be viewed as inhibiting the colleges' ability to meet particular access and quality requirements. However, it should be noted that in those programs which are subject to mandatory accreditation, more specific stipulations have generally not been viewed as unnecessarily constraining.

More general standards, however, might allow for an additional (sixth) benefit within a framework of consistency; namely, the ability to 'mandate diversity.' While some might suggest that greater diversity in delivery and program elements might result from the absence of system-wide standards, an argument can be offered that similar programs, under the current system, may move toward a 'least cost' view of program elements. Indeed, the history of reductions in general education elements in most programs suggests that this may be the case ("Pressures for Change":7-8; IARC:93). While participants in the focus group discussions viewed system-wide initiatives as necessary to reassert common program features, consistent guidelines would enable diversity to be a deliberate, rather than a chance, outcome. Stated differently, in

the absence of common standards, differences in program content and delivery are unlikely to be systematic; whereas the development of such standards could allow a provincial body to deliberately and purposefully approve and fund college offerings which would exhibit clear differences and, therefore, be the subject of systematic study of their efficiency and effectiveness. Thus, consistency in standards may be argued to enable more, not necessarily less, diversity if this is concluded to be an appropriate objective for the system as a whole. By way of summary, the expressed need for diversity in program delivery, and for decision-makers to determine appropriate structures and processes, may benefit from Dale Parnell's conclusion on appropriate roles:

The point of access for policy makers into the teaching/learning process should be in determining what should be accomplished not how it should be accomplished (Parnell 1985:65; emphasis added).

Program Review and Standards: A Brief Note

As noted above, a (fifth) benefit of system-wide program standards is their use as the basis for program review. This should be seen in the context of the objective of assuring and enhancing quality, rather than reviews oriented toward decision-making about the benefits, affordability or demand for the particular program. A high quality program may ultimately be deemed inappropriate from provincial (or local) fiscal or political criteria. Though quality judgments are undoubtedly involved in such decisions, the objective of greatest import here is the need for program review for the purpose of enhancing program quality. (This may be distinguished from operational reviews or other means of examining cost efficiencies or other circumstances related to delivery, irrespective of quality.)

The nature and extent of individual college program review is assumed to vary greatly. It was noted more than a decade ago that "the internal evaluation process in the individual colleges is weak and somewhat inconsistent" (Zaharchuk and Palmer 1978:69), and there is little evidence to suggest this conclusion would be altered over the intervening time. The same report notes the lack of agreement on 'appropriate terminal objectives' or on models for evaluation, a view confirmed in the discussion paper on "Provincial Program Standards" (MCU April 1989) and the Report of the Accreditation Review Committee (MCU June 1989). It is unclear what response was forthcoming, either by the Ministry or the Council of Regents, to the Zaharchuk and Palmer (1978) report. Its proposals for a more proactive stance by the Council with respect to quality appear to have garnered little support. (As will be noted below, it may be that their proposal was merely ahead of its time, and may now be reconsidered, albeit in a different context, as a means to achieve the objective of enhancing the quality of college programs.)

The discussion of approaches to quality and program review outlined above, however, does not, in and of itself, indicate that system-wide program review is either necessary or desirable. Some might suggest that the outcomes and value-added views of quality are contingent upon the individual learner, rather than the program, being the unit of analysis. Similarly, the responsive, connoisseurship and (to some extent) goal-based models of evaluation may be argued to be most appropriate to the examination of individual programs (or institutions) rather than to evaluating a program across institutions. Given that much of the literature is oriented to the U.S. situation of thousands of autonomous (and many of which are private) institutions, often with very specific and highly differentiated missions, this may not be surprising. In discussing program evaluation, one observer notes that

quality is certainly related...to the notion of a standard; someone has to set that standard. It is also clear that quality is a relative term...Thus, an appropriate assessment of quality consists of two parts — setting or acknowledging a standard and determining how various aspects of a program measure up to that standard (George 1982:49).

In the case of the colleges, therefore, the question is properly asked as to what is to be the nature of the standards to be used and how are aspects of programs to be judged. In responding to these, it must be stated that there is a clear desire to see common standards and to evaluate similar programs at all colleges on the basis of the same standards. As noted in reporting the responses to Study Team 4's discussion paper,

no group of participants suggested that colleges should be differentiated with respect to quality. While many participants wish to see variations in how programs and courses are delivered, no one viewed the prospect of considerable variations in quality...as desirable ("Most Things":5).

Programs would therefore have to share both objectives and standards, at some level. Criteria suggested by focus group participants included elements of content (e.g., clear general education and possibly generic skills requirements), common entry standards, provisions to assure the equivalence of full-time and part-time offerings and to assure equivalence between credits at different institutions (and, certainly, within each college). When combined with common exit standards, which imply a common level of achievement, the contours of what would be appropriate guidelines for the development of system-wide standards begins to take shape. With reference to the approaches cited above, these features appear most related to a goal-based model of evaluation and to the assessment of quality implied by aspects of the outcomes and value-added approaches to quality; both of which seek to ascertain learners achievements (albeit very differently), rather than a program's reputation, resources or content divorced from what they actually serve to help learners achieve.

A focus on the achievements of learners, however, need not preclude interest in the educational process. To the extent that delivery decisions are properly a matter of providing appropriate responses to the learning styles and more specific needs of individual learners (and given the general antipathy to having standards be prescriptive in these areas), it would appear that limiting such standards to achievements may be most appropriate at this juncture. However, this is not to support a (reductionist) position of "assessing quality by counting" (Skolnik 1988:19). Rather it is possible to suggest that a variety of achievement measures can be developed which do not presuppose a uniform approach to instruction. For example, elements of a responsive model of evaluation could be incorporated which might include, for example, measures of the satisfaction of students, faculty, academic administrators and employers with a variety of program features. Data on how students attain entry standards, how appropriately they (and faculty) view specific requirements during and after their programs, etc. are potentially useful elements of reviews aimed at enhancing quality.

Such a perspective on the use of multiple measures would also help indicate a commitment to the purpose of program reviews as formative, rather than summative. (Who should be responsible for such reviews is outlined below.) The purpose of using a variety of measures is not to be methodologically eclectic, but, rather, to attempt to be more comprehensive in identifying not only what objectives are being met, but how, and how effectively. Summary measures such as short-term placement rates cannot be sustained as surrogates for quality (or even achievement). As noted above, occupational attainments are subject to economic (and personal) factors external to a given program's quality. As one factor, however, the utility of such measures is expanded if a longer term perspective is adopted which includes, for example, reference to employment stability, promotion, and additional training (including employer perceptions of a graduates contribution to the enterprise), rather than simply initial placement. Additionally, some activities such as some programs currently funded through MSD and CEIC, as well as a variety of academic services, do not have specific employment objectives, though the quality of such activities merit attention as factors in learners' achievements. The legitimacy of such activities (e.g., BJRT, ESL, gen ed., communication, problem solving skills, etc.) appears to argue for a more comprehensive approach to assessing quality. Having established the importance of a broader view of education, its assessment is likely to be more difficult. Citing Howard Bowen, Marcus, Leone and Goldberg state

Regarding outcome evaluation of academic programs, Bowen... reminds us that crucial to such an effort is an orientation toward personal development, not toward resource use; that all educational goals should be examined, not only the easily testable goals; that the level of growth among a program's students, rather than the ultimate level of attainment by the students, should be most important. An effective program assessment must include both a process and an outcome orientation (Marcus, Leone and Goldberg 1983:39).

By way of summary, it may be concluded/recommended that system-wide program standards are both necessary and desirable for college offerings. These should be formulated to provide the following six benefits (or to achieve these as objectives):

1. clearly defined outcomes for all program graduates;
2. a clear definition of 'credits,' which in turn comprise programs for different credentials, which assist learners by assuring the equivalence of credits both within and between colleges (including full-time and part-time offerings);
3. clearly defined entry standards common to all similar programs which, together with the provision of 'front-end' academic services, will serve to enhance the quality and efficiency of program offerings (without restricting access);
4. clearly defined program objectives, content and resources which assure that offerings are current to the needs of employers and are supported by appropriate curriculum and human resource development initiatives;
5. explicit provision in all program standards for individual college initiatives in the development of specific content and delivery forms to address local needs; and
6. explicit provision for system-wide evaluations of all programs on a regular basis, focussing on the objectives applicable to all similar programs and employing a variety of measures to systematically provide data needed for ongoing program improvement.

A 'final' note on Quality

Prior to discussing some possible features to help structure the enhancement of quality at a system level, it may be useful to note that, in addition to the six objectives summarized above, several other principles/recommendations can be noted. (These are taken, largely, from "Most Things," but may be summarized briefly here.)

- a. Whether related to (1), (2), or (4) above, the broadening of program content to include a greater proportion of general education and generic skills to meet the needs of learners and employers alike;
- b. related to (4) above, explicit provision for capital and human resource development (of college personnel) to enable offerings to be 'current;'
- c. related to (3) above, provision of the necessary assessment, program counselling and placement, and remedial and preparatory activities to support access, retention and lifelong learning goals.

While these might be considered independently of provincial standards, their attainment is likely to be most effective in the context of the changes involved in developing a coherent approach to educational quality, including system-wide standards and program review.

B. Some Features of a Self-Governing System

This section will outline some features of structure and governance related to academic policy in an effort to meet the principal objectives discussed above and address some of the issues raised in response to the discussion paper. In doing so, the focus will be on the principles to be embodied in these or other structures and processes.

A major (if not THE major) question to be determined with respect to governance may be couched as the distinction between institutional autonomy and system self-governance. Both principles have been referenced in the consultations following the discussion paper ("Pressures for Change") and both have been given voice, if only in a general way, as alternatives to greater central control (see "Most Things"). Prior to offering a view toward reconciling these alternatives, it may be useful to comment on some features of the

current system with respect to academic policy. (Readers may wish to examine the MCU papers referenced for more extensive discussions from the perspective of policy options.)

As evidenced in the MCU documents, the history of academic policies concerning the colleges may be characterized as an attempt to balance local and central authorities. Irrespective of individual judgments as to the success of this approach, it is clear that the colleges have been viewed as having "the primary responsibility for ensuring quality" (COR 1982), while the Minister of Colleges and Universities is deemed to have overall responsibility for the college system. Thus, balancing the responsibility of each college with the authority and accountability of the Minister may be seen as an important context (both conceptual and practical) which has historically informed academic policies. As indicated in the MCU documents, the primary vehicle for ministerial control has been through centralized program approval and, secondarily, through the mandatory accreditation of a limited number of programs (though the Ministry is not itself the accrediting body). Other matters of academic policy, in general, have been deemed to be the prerogative of autonomous institutions; and interventions have been considered, by both the Ministry and college personnel, to be essentially aimed at supporting local responsibilities for academic matters (e.g., development of provincial standards in selected fields, evaluation instruments, etc.) with the perception of voluntarism on the part of both parties. While the limitations on expressed ministry involvement may be characterized as 'laissez-faire' with respect to a number of academic policies (i.e., explicitly not imposing requirements or limitations), in several other areas more central involvement can be seen as related to quality concerns, perhaps the best example of which is collective bargaining. While conclusions as to the precise effects of the collective agreement on quality may vary greatly, provisions of the contract related to workload, for example, can be seen as imposing limitations (proper or otherwise) on individual college authority in some academic areas (e.g., class size, preparation and evaluation, teaching hours).

An additional limitation on the autonomy of individual colleges can be evidenced in other relations with government. For example, constraints on enrolment and program length in government purchased programs (e.g., CEIC funded BTSD, ESL and MSD funded Futures; etc.) are perceived to have an effect on both quality and access through the imposition of either implicit or explicit conditions which conceivably would vary were colleges fully autonomous in these matters. (Again, there is no judgment here as to whether such limitations are appropriate but only that such are, in fact, real constraints on institutional autonomy in program matters.)

Further limitations on institutional prerogative may be more implicit than explicit, but may have had important impact none-the-less on at least the 'perception' if not the 'reality' of the quality of college offerings. For example, the repeated calls for the explicit funding of assessment, preparatory and remedial activities, general education and generic skills components, human resource and curriculum development, may be understood to be rooted in the judgment that centrally determined funding parameters have severely limited institutional discretion to provide such quality-related supports. This is not to say that decision-makers wished to specifically limit such activity; but, rather, that this did, in practice, result from actual allocations. (This is not a novel interpretation of events, as evidenced from the IARC report with respect to the colleges and numerous reports of COU and OFS with respect to the universities. Nor is it intended as a critique of government spending priorities. Rather, it is simply an indication of one of the means by which local autonomy over academic matters has come to be limited.) A clear example of more explicit judgments about the relationship between funding and quality determination can be seen in one conclusion of the Accreditation Review Committee

While it can be argued that far too little is currently being spent on quality control (e.g., compared with industry), the cost of accrediting all college programs on a regular basis would be prohibitive. However, any Ministry initiative to promote and ensure program quality should be aimed at all college programs; otherwise two classes of programs would result. (MCU June 1989:34)

This is, of course, not a perspective on the funding of programs themselves, nor of academic supports other than program review. It is, however, one example of the limitations of the current form of shared

responsibility for quality. In the abstract, individual colleges are responsible for ensuring quality, while the Minister is responsible for the system as a whole; while, in practice, central determination of the affordability of, for example accreditation, limits at least one mechanism through which quality assurance might be addressed.

Given the above, the question is properly posed as to what ought to be the appropriate sharing of responsibilities for quality in the college system. Two observations may be considered. First, it is nearly impossible (from a political perspective), highly undesirable (given the views expressed to Vision 2000) and essentially impractical to construct a system where individual colleges are, in fact, solely responsible for assuring the quality of their own offerings. The changes required would be considerable and the resulting potential for even greater variation in programs and opportunities are clearly unacceptable to those with whom Study Team 4 has consulted. Second, the prospect of educational matters being determined by a body external to the colleges (be it a ministry, professional association or other body) is equally antithetical to the sensibilities of most within the system. The changes required, while less extensive, would be viewed as counter to the values and culture of the colleges and would likely be the subject of intense resistance with a host of negative effects. The obvious middle ground can be discussed with reference to the principles advocated by many of those with whom we consulted, coupled with some difficult decisions in key areas of academic responsibility.

The principle of constructing a system which is essentially 'self-governing' can be understood as distinct from both local autonomy and governmental control. As noted, the limitations of institutional decision-making include its inability to provide for the commonalities between colleges that are viewed as both necessary and desirable. Alternatively, the most serious limitations of external control are the lack of ownership and commitment understood to be essential for both the legitimacy and practicality of effecting desired changes, as well as the acknowledged primacy of individual efforts in effectively determining and meeting the everyday realities of particular educational needs. Three important attributes may be seen to characterize a 'self-governing' system. First, that decision-making with respect to academic matters is inclusive; i.e., that all programs and activities of the colleges are considered as part of the appropriate domain of the structure as a whole. Second, that the governing bodies are representative; i.e., that decision-making will be (demonstrably) more effective with a direct and substantive involvement of those responsible for the implementation of decisions. This is not to invite an implied conflict of interest. Rather, the college community, broadly defined to include both internal and external stakeholders, must be appropriately (not necessarily equally) represented on those bodies responsible for academic decisions. Third, such a structure should provide for decisions which are collaborative; i.e., that competition, jurisdictional disputes, and adversarial approaches to issues affecting program quality be replaced by a commitment to cooperation, between colleges, between the system and governments and with other groups (e.g., professional associations, unions, industry organizations, school boards, universities, etc.). It may be noted that the basic structure and relationships are broadly consistent with that offered in Zarachuk and Palmer (1978:89-97).

Some Recommended Structures

1. At a system level, the basic structure would provide for a College System Coordinating Council (CSCC) which would have overall responsibility and authority for all matters of academic policy pertaining to college activities. It would be comprised of representatives of the colleges' administration, faculty, support staff, and students; provincial industry, labour, professional associations and community representatives; and federal and provincial governments with a direct interest (usually through funding) in the enhancement of the college system. This body would establish basic policies and directions and act as the parent body to several other entities. Its jurisdiction would include policies regarding program approval, general education and generic skills, credit equivalencies and credential requirements, and review and approval of recommendations of its subsidiary bodies.

2. Provincial program councils would be similarly constituted and would, as a community of interest, establish policies and practices in matters affecting all programs in their content area. This would include

both adult training and post-secondary programs, regardless of their (current) duration or source of funding. Five such councils can be immediately envisaged — Health, Manufacturing and Skilled Trades, Information and Administration, Social Services, and Applied Arts. Such councils would be mandated to develop procedures for enhancing program quality, including system-wide standards (which, in turn, would include the areas stipulated earlier; i.e., admissions, program requirements, exit standards and other outcomes), program approval and regular program review, some parameters for which are suggested below. The decisions of each council would, where necessary, be reviewed by the coordinating council to ensure consistency with overall system mandate and policies (e.g., on admissions, general education, generic skills, etc.).

3. A system-wide access council, similarly representative of appropriate stakeholders, with responsibility for ensuring the availability to learners of appropriate assessment, program counselling and placement, and preparatory and remedial offerings. In addition, this group could assist program councils in the development of assessment and evaluation processes relevant to the needs of individual college programs.

4. A provincial institute for advanced studies (termed OIPCS in Wolfe 1989:8-12), with degree granting authority for a limited number of advanced offerings, would be established for the expressed purposes of (a) developing combined college and university programs in specific content areas, and (b) credentialling such programs appropriately.

While each of these bodies would require an extensive set of guidelines, several 'specifications' may be offered. Among the most important decisions are those falling specifically to the program councils and some greater detail may be helpful in resolving the major issues identified in the report of responses to the discussion paper.

A. While program approval would be the responsibility of program councils, they need not impose a requirement for each and every offering to be subject to a central mechanism for approval. Some offerings within each program area could be designated as basic to the system. In order to meet the access needs of particular learners (or groups), guidelines would be issued which would allow each college to provide variants of these system-wide programs without the requirement of central approval. This would enable, if not encourage, each college to adapt both the content and delivery to meet identifiable local needs. The applicable provincial standard would be used to guide such program development and all such programs, be they directed toward certificates or diplomas (i.e., current adult training or post-secondary) would be subject to regular review.

B. In addition, program councils would, by way of program standards, stipulate the number and kinds of credits which would be required at each level of certification. This would enable learners to take the greatest amount of responsibility for determining their courses of study. It would also provide flexibility (e.g., for transfer, credit accumulation, etc.) that most view as necessary for the system as a whole

The program standards, which may be properly viewed as guiding, but not dictating, the colleges' offerings, will be developed under the auspices of the relevant program council. The composition of the program council must ensure that college personnel, funders and all relevant stakeholders are involved. Such a process is predicated on the assumption that those involved in the support, education and employment of learners are in a position to collaborate in determining the kinds of objectives and experiences which will be most appropriate. (To suggest otherwise is to assume that a community of interest neither does, nor can, exist. Vision 2000, as a matter of principle, must establish the value of collaboration and propose a structure and mechanism — this or another — which embodies that value.)

C. An additional responsibility which flows logically from those outlined above concerns the need for each program council to ensure that programs have the 'critical mass' required to provide high quality offerings. Not only does this require the consideration of capital and human resource development needs,

but of balancing provincial and local/regional needs. Two explicit directions may need to be acknowledged. First, program councils (in conjunction with the Institute for Advanced Studies, where appropriate) may need to consider program consolidation in some fields. While its decisions will be subject to review by the coordinating council, each program council is best constituted to assess overall provincial demand and the adequacy of resources to meet their requirements for high quality offerings. (This might take the form of 'enrolment statements' that indicate, to the colleges and the public at large, the approximate number of learners which can be accommodated at a given level of provincial expenditure. Alternatively, such statements may be issued by the coordinating council on behalf of the system as a whole.) Second, program councils have a leadership role to play in developing the diversity of offerings necessary to meet local needs. Not only will individual institutions have the flexibility to meet program standards in a variety of ways, program councils will (ultimately) be in a position to encourage diversity through explicit recognition of alternative delivery forms. Whether as 'demonstration projects' or 'pilot programs' (which will similarly be subject to review), program councils may be in a position to encourage alternatives with a view to examining both their efficiency and effectiveness. As such, each council may serve as a resource to individual colleges from the knowledge and experience of the entire system as represented in its members. Both needs, for limited consolidation on a provincial basis and diversity of local approaches, address objectives enunciated in response to the discussion paper.

D. As noted, all programs would be subject to regular reviews. This is necessary in order to ensure not only that the particular offering will benefit from evaluating its features, but also to assure that the program standard from which it draws its direction is current and useful. While program councils may structure and, where necessary, conduct such reviews, a system-wide evaluation council may be useful in providing guidance and advise the coordinating council on such matters. (It is not assumed that standards or the reviews which evaluate their application will be 'equivalent' for all programs. Rather, it is the intent that, wherever appropriate, programs will have their own standards, at different levels of specificity, and their own review processes, similarly varied. The principal requirement is that all programs in a given area, offered at any college, will be subject to the same standard and review process, be they guidelines or more directive, as agreed to by the program council.) An evaluation council could assist in providing a focus (or balance) to program council members, whose interest in the particular offering may need to be balanced with a system-wide perspective necessary for decision-making. The principal distinction is between the program council's interest in quality assurance of each program (at all colleges) and the evaluation council's interest in comparing quality (and effectiveness) across programs. It is hoped that an independent evaluation council, responsible directly to the coordinating council, will embody the system's commitment to enhancing the quality of all offerings and will act as a resource to both individual colleges and programs.

E. The access council's responsibilities are critical to achieving the goals of access so strongly advocated by the college community. Learners with a variety of backgrounds and aspirations must have equal access to the wide range of offerings available for their development. Common program requirements, coupled with comprehensive information and counselling, must inform decisions. Furthermore, appropriate preparatory offerings must be available for these to be translated into reality.

A particular feature of this body (in addition to its other responsibilities) would be its role in coordinating the evaluation (registration) of appropriate programs for training under a grant-levy system. With the representation of the colleges' counselling and program placement functions, as well as stakeholders external to the colleges, the coordination of system-wide with local initiatives is necessary to facilitate an effective program to upgrade the province's labour force.

F. The proposal for an Institute for Advanced Studies must be considered in light of several points. First, that there is little interest in the colleges assuming a university transfer function, nor is it clear that there is a great need for colleges to assume such a function (Dennison 1989:25 and Skolnik 1989:12). Second, increasing interest from professional groups (e.g., nursing, accountancy) in degree requirements for their members has raised the issue of whether professional bodies should have the authority to unilaterally determine the locus of post-secondary programs, including how and where practitioners should be trained.

Policies respecting exclusive authority will have to be clarified (i.e., under what conditions will licensing be regulated). Third, and of primary importance in this discussion, may be the perception on the part of many in the college community that a need exists for more advanced training. While the number of learners for whom such offerings would be appropriate may be limited, it appears to be assumed that in a number of specific areas some additional (and, in some cases, different) offerings may be beneficial. The provision of such opportunities can be viewed as furthering the objective of providing for 'lifelong learning.'

In meeting this need, and given the current provision of post-diploma and other specialized offerings, some might suggest that individual colleges either (a) be given degree granting authority, or (b) that such needs be accommodated solely through individual college-university agreements. The former, however, might serve to challenge more basic offerings by finding those colleges offering degrees, in any area, drifting from their 'college' functions, thus becoming "more integrated organizationally and culturally into the Ontario university community" (Skolnik 1989:42), with the potential of creating two classes of college institutions — a situation clearly not desired by the college community ("Most Things":5). The latter (a multiplicity of individual agreements) presents the two problems of universities exercising a *de facto* veto (and potentially significant steering effect) on college offerings (Skolnik 1989:31) and the considerable disparity in access to such opportunities likely to result. Indeed, Dennison suggests that cooperative arrangements (predominantly sequential) will require some limitation on university autonomy viz a viz the colleges (1989:27) and, given the opposition to such limitations likely to ensue, a body with executive authority would be necessary to resolve such matters. The option of degree granting vested in a system-wide body would enable the objective of advanced training to be realized, without either the internal division or the uneven access likely to result from other alternatives. To the extent that college offerings are envisaged to meet different needs than those of universities, a system-wide body, which could include appropriate university representation, might best provide the offerings to meet identifiable needs. In sum, the alternatives to creating a provincial institute would imply that colleges might be differentiated by function, that access to basic college offerings might be unreasonably curtailed in some communities, and/or that individual institutions (both colleges and universities) might impose significantly different opportunities for credit accumulation and transfer, including the possibility of different treatment of similar learners by different institutions. Coupled with the likely steering effect on both resource allocation (within colleges) and on content and delivery (by universities), the alternatives are likely to create more problems than they solve: hence, the proposed structure (See Wolfe 1989 for additional discussion).

G. While each college may wish to organize its own governing structures, aesthetics, if not logic, might indicate the desirability of a parallel structure at the college level. This would suggest that similar principles of inclusion, representation and collaboration be embodied in a board of governors whose functions parallel those of the coordinating council (a restructured academic council might achieve the same goals), with 'divisional/program' councils similarly constituted to facilitate college decision-making. In some areas (e.g., Metro) intercollege bodies may be useful additions for regional coordination; though these should not, except by explicit agreement, intrude into the relationship between individual colleges and system-wide bodies.

H. Accountability would be embodied in a variety of forms. A major change from the current system would find the Minister at greater distance in matters directly related to the nature and quality of college offerings. To the extent that the college system has 'matured,' the widespread benefits of provincial standards (some of which are identified earlier in this paper, as well as in MCU April 1989) may be realized without such standards being seen as an unwarranted intrusion into local autonomy. Similarly, a structure and mechanism based on the representation and collaboration of internal and external stakeholders, holds promise for the realization of the quality and access goals endorsed through the consultations undertaken by Vision 2000. At the most general level, accountability is not a matter of justifying the particular operations of a particular body (person or institution). Rather, it is expressed in its positive form as the ability to provide a system which engenders the confidence of major stakeholders and the public-at-large; one that assures quality is provided at a reasonable cost and in an equitable fashion. The system can be accountable through program standards determined by a representative body, explicit

consideration of the resources to achieve the standards, and program review to assure those standards are met (all of which are subject to examination by the coordinating council). Colleges are accountable to the system as well as to their more immediate communities, through their participation on provincial bodies and the reality of regular reviews of their programs, on the basis of agreed upon standards, irrespective of their duration, source of funding or the nature of their students. Among their ongoing functions, perhaps the most significant is the responsibility of each college to ensure that its offerings provide the diversity and delivery forms appropriate to the needs of its local community, both individual learners and employers.

The self-governing system outlined above omits discussion of costs; their determination, allocation and how to structure their administration. To the extent that accountability is conceived 'financially,' this is an oversight. Our concern in this discussion, however, has been focused on how quality might be understood, achieved and assured. Together with provisions for increased (and equitable) access, this has hopefully provided a focus for revitalization of the college community from which a more efficient system may also emerge.

Some brief comments on affordability, however, can be offered which may provide some topics to be developed. It may be true that the directions outlined above can lead to a high-quality college system with a high degree of access to serve the diversity of potential learners and needs that challenge our thinking. However, it has been noted that "the true does not determine the good, particularly when there are so many competing goods" (Marcus Leone and Goldberg 1983:27). Stated differently, as one focus group participant did, "how much quality can we afford?" Assuming that a longer-term perspective on the potential effectiveness of expenditures is used when determining allocations, seven points are offered for consideration.

1. Some increased expenditures for 'basics' are required. These are crucial social investments whose potential benefits may be a reduction of the social costs of NOT providing them (e.g., welfare, unemployment, and related public expenditures; and therefore should be considered from general provincial revenues) and include 'front end' academic services (i.e., assessment, preparatory and remedial), and general education and generic skills offerings.
2. Some increased expenditures are required for specific skills training, comprehensive retraining and the (numerically) limited but critical needs for advanced training. Such funding should be available from a grant-levy system dedicated to provincial human resource development. The support and commitment required (politically) to implement such a scheme may be part of a trade-off whereby the system assures quality and involvement in exchange for the revenue required to provide both.
3. Excellence may result in increased contract (i.e., fee for service) training, which should be self-supporting (if not revenue generating) for local colleges.
4. Increased student assistance should be made available, especially for part-time study, some of which may be offset through selected fee increases.
5. Increased contributions from business and industry, especially those 'in kind' contributions involving the use of facilities and equipment, exchanges of personnel, etc. can benefit the quality of offerings and their availability, as well reduce training times in some programs (through efficiencies in delivering programs through increased use of employers facilities).
6. Reducing attrition and consolidating selected programs should both lead to more optimal/efficient utilization of resources.
7. System-wide 'R&D' in the form of curriculum development and projects aimed at developing alternative delivery forms will require additional expenditures, as will HRD initiatives for college personnel. Resources from a variety of sources (including grant-levy, general revenue and contract training) will have to be explicitly targeted to support these requirements of an up-to-date system.

It may be true, therefore, that enhancing quality and access may be more affordable than some have feared; which, in itself, would be just one of many 'goods.'

In the final analysis, however, the future of the colleges and the learners the system seeks to serve hinges on an important value distinction. A system based on what Dale Parnell has termed 'cultivating excellence' requires a far greater commitment than one based on 'selecting winners,' but has the resonance of a society which seeks inclusion, rather than exclusion. In summarizing his views, Parnell writes

History will gauge this generation primarily by what we have done with our human resources and our human values. If we do not cultivate the best in our people and fully utilize our human resources, we become a wasteful society regardless of what else we do.

The waste of our human resources is not only a national embarrassment, but in a rapidly changing world it is also a threat ... a disabling disadvantage in the world economic competition ... Any new attempt to revitalize our economy or our educational system will fall far short of its goal unless we place a high value upon cultivating excellence and the full development of our human resources (Parnell 1985:172).

Notes

1. This outline owes much to Conrad and Wilson 1985 and references therein, and Astin 1987.
2. This section owes much to Conrad and Wilson 1985; Marcus, Leone and Goldberg 1983 and Skolnik 1988.



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